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OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE

ANNUAL CATALOGUE, 1903-4
WITH ANNOUNCEMENTS FOR 1904-5.

A&M

Stillwater, Oklahoma.

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COLLEGE PRESS

COLLEGE CALENDAR, 1904-5.

Fall Term begins September 12; closes December 21, 1904.

Winter Term begins January 3; closes March 16, 1905.

Spring Term begins March 21; closes June 7, 1905.

Short Winter Courses begin January 3; close February 24, 1905.

School of Agriculture and Domestic Economy opens October 18, 1904; closes March 16, 1905, with Christmas recess as noted above.

Monday and Tuesday, September 12 and 13, 1904, will be devoted to the registration of old and new students, and to entrance examinations.

Withdrawn

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A. G. FORD, B. S. ..... Associate Chemist
L. A. MOORHOUSE, B. S. ..... Assistant in Soils and Crops
J. F. NICHOLSON, M. S. ..... Assistant in Bacteriology
F. O. FOSTER, B. S. ..... Assistant in Agriculture
E. H. RILEY, B. S. ..... Assistant in Animal Husbandry
W. C. THEILE ..... Clerk and Stenographer

FACULTY

ANGELO C. SCOTT, M. A., LL. M.
President, English Language and Literature.

GEO. L. HOLTER, B. S.
Professor of Chemistry and Metallurgy.

LOWERY L. LEWIS, M. S., D. V. M.
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JOHN FIELDS, B. S.
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Professor of Mechanical and Mining Engineering, and Physics.

JAMES W. MEANS
Professor of Mathematics.

FRANCIS C. BURTIS, M. S.
Professor of Agriculture.

FRANK A. HUTTO, Ph. D.
Professor of History and Political Science.

WALTER R. SHAW, Ph. D.
Professor of Botany and Entomology, and Geology.

M. MAUD GARDINER, B. S.
Professor of Domestic Economy.

ROBERT H. TUCKER, M. A.
Professor of German and Latin; Associate in English.

OSCAR M. MORRIS, B. S.
Professor of Horticulture.

GLOVER D. HANCOCK, M. A.
Principal of Sub-Freshman Work.

LEWIS C. GRAY, M. A.
Principal of School of Agriculture and Domestic Economy.

AUGUSTUS G. FORD, B. S.
Associate Station Chemist and Instructor in Agricultural Chemistry.

Llewellyn A. Moorhouse, B. S.
Assistant in Soils and Crops.

Melvern F. Thomas, B. S.
Assistant in Mechanical Engineering.

Arlington P. Little, B. S.
Assistant in Electrical Engineering.

John F. Nicholson, M. S.
Assistant in Bacteriology.

Floyd O. Foster, B. S.
Assistant in Dairying.

Edward H. Riley, B. S.
Assistant in Animal Husbandry.

J. Homer Adams, B. S.
Instructor in Mathematics.

Arthur C. Lewis, B. S.
Assistant in Botany and Entomology.

Ethel V. Walker, B. S.
Assistant in English and Latin.

Jessie E. Morrow, B. S.
Assistant in Domestic Economy.

Z. J. Cawood,
Principal of Business School, Official Stenographer, and Registrar.

George B. Gelder
Superintendent of Printing Department, and Instructor in Printing.

John I. Hastings,
Assistant in Shop Work.

Cora Miltimore, B. S.
Librarian.

William C. Theile
Secretary.

Oklahoma Agricultural and Mechanical College

FOUNDING AND HISTORY

An act of congress, approved July 2, 1862, gave to each state which accepted its provisions within two years 30,000 acres of government land for each one of its representatives in congress, the proceeds to be applied to the endowment and maintenance of the agricultural, or as Senator Morrill, the author of the act, preferred to call them, the "national" colleges.

A subsequent act, approved August 10, 1890, extended the endowment of these institutions by an appropriation of $15,000 a year, increasing each year by the sum of $1,000 until the annual amount should be $25,000. This limit was therefore reached in 1900.

On March 7, 1887, an act of congress was approved, appropriating annually to colleges thus established $15,000, for the maintenance of experiment stations "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science".

This institution receives the benefit of the last two acts of congress only. By an act of the legislative assembly of Oklahoma, which took effect December 25, 1890, the provisions of these acts were assented to, and the College and Experiment Station located at Stillwater, in Payne County. The institution opened in the fall of 1891.

SCOPE OF WORK

It has been said above that this institution does not receive the benefit of the act of 1862. In order, however, to understand clearly the scope of work contemplated in these institutions the language of both acts should be quoted. The act of 1862 makes its grant for "the endowment, support, and maintenance of at

least one college, where the leading object shall be, without excluding the other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, ... in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life". The appropriation under the act of 1890 is to be applied "only to instruction in agriculture, the mechanic arts, and the English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their application in the industries of life, and to the facilities for such instruction".

From these two expressions of the legislative purpose it will be seen that the popular impression that the courses of study in these institutions are narrowly confined within the limits marked by the two words "agricultural" and "mechanical" is erroneous. While special facilities are provided, and special instruction is given, in agriculture and its branches, and in the mechanic arts it is quite within the province of this institution to give specialized training in biology, in chemistry, in political science, in domestic economy, in commercial lines, in the English language and literature. Even this liberal limitation may be extended within reasonable bounds—determined in accordance with the general nature of the institution—by the territory, insofar as it chooses to pay for the additional instruction. In a word the law contemplates the providing, through these institutions, of a "liberal and practical" education. It does not lose sight of the inspiration of the higher learning, but it has particularly in view the equipping of the student for efficiency in the activities of life.

The several courses of instruction, as set out in subsequent pages, will be seen to be arranged upon this conception of the scope of our work.

RESOURCES

MORRILL FUND

The Oklahoma Agricultural and Mechanical College receives from the government every year the sum of $22,500. This is the $25,000 "Morrill Fund" above referred

to, less $2,500 set apart from it by the territorial legislature for the benefit of the Agricultural and Normal University at Langston. It is to be expended for instruction and appliances only, the territory of Oklahoma providing buildings, repairs, etc.

HATCH FUND The Agricultural Experiment Station, which is a department of the college, receives from the United States government an annual appropriation of $15,000, to be used solely for experimentation and the publication of results. This is known as the "Hatch Fund".

TERRITORIAL TAX LEVY The territorial law provides for a sufficient levy on the taxable property of the territory for the benefit of the college to realize $12,000 per year.

LAND LEASE MONEY The law also sets apart one-seventh of the income derived from the rental of the lands granted to the territory for the benefit of the institutions of higher learning. This amounts to about $8,000 a year.

VACCINE FUND A law passed by the Legislative Assembly of 1903 provides for an annual appropriation of $2,500 for the manufacture and free distribution within the territory of vaccine by the Agricultural Experiment Station.

OTHER SOURCES There are other slight sources of income, not necessary to detail here, which raise the total annual income of the college and station to about $62,000; but, as above stated, $15,000 of this amount is applicable only to expenses of experimentation, and not available for purposes of instruction.

EQUIPMENT

GROUNDS AND BUILDINGS The campus, farm, and experiment station grounds embrace a tract of 360 acres. Four chief buildings are occupied for purposes of instruction: Library Hall, used, in addition to the accommodation of the library and reading rooms, for the departments of English, Latin and German, History and Political Economy, Zoology and Veterinary Science, Domestic Economy, Botany and Entomology, and the general auditorium

—with gymnasium, toilet rooms, etc. in the basement; Central building, used for the administrative offices, and for instruction in English, mathematics, business courses, etc.; the Chemistry building, used for instruction in chemistry, and for the offices and the operations in chemistry of the Experiment Station; the Engineering building, used for the offices, lecture rooms, drawing rooms, and reading room of the Department of Mechanical Engineering, with adjoining buildings containing the shops and laboratories of the department. In addition to these a small wooden building is devoted to instruction in horticulture, and certain rooms in the college barn are fitted for instruction in stock-judging, dairying, etc.

LIBRARY The college has a well selected library of about 10,000 volumes. The books are kept in fire-proof stack rooms, and a commodious reading room is provided immediately adjoining. Students are permitted under proper restrictions to take books to their rooms. The best reference books and the leading periodical publications are at the disposal of students.

SCIENTIFIC APPLIANCES In chemistry, physics, mineralogy, botany, zoology, entomology, physiology, agriculture, horticulture, and veterinary science the college is equipped with the latest and best appliances and apparatus, consisting of collections, models, charts, maps, microscopes, balances, etc., representing an outlay by the government of approximately $90,000.

MECHANICAL DEPARTMENT The equipment of this department includes a machine shop, a carpenter and pattern-making shop, a blacksmith shop, a foundry, and a drawing room, besides the electrical engineering laboratory. The equipment of the machine shop includes lathes, shaper, milling machine, planer, a universal grinding machine, drill press, and an extensive assortment of small tools. The wood working shop is supplied with a circular saw, band saw, wood turning lathes, a patternmaker's lathe, and work benches with complete sets of carpenter tools. The blacksmith shop contains eight down draft forges and four hand forges, each supplied with a complete set of blacksmith tools.

The foundry is supplied with an 18-inch cupola, core oven, sand sifter, and foundry benches and tools. The air blast is furnished by an electrically driven fan. In the electrical engineering laboratory the machinery has been selected and arranged in such a manner as to afford students the greatest facility for acquiring a thorough knowledge of different types of electrical machinery and their management. Especial attention has been devoted to alternating polyphase machinery—justified, it is believed, by the rapid development of this branch of engineering. The equipment includes a 30 kilowatt dynamo, directly connected to a 10x10 automatic engine furnishing power for the other electrical machines, which include direct and alternating current dynamos and motors, static and phase-changing transformers, and synchronous converters, all of the latest designs. The department is well supplied with accessory apparatus, including voltmeters, ammeters, and wattmeters of wide range, as well as galvanometers, and other instruments of greater precision. There is also a good selection of physical apparatus for purposes of demonstration and instruction. The building equipment of this department consists of an engineering building, containing lecture rooms, drawing rooms, reading rooms, offices, and bath rooms; a shop building, containing the mechanical, electrical, and wood-working laboratories, the printing office, and blacksmith shops; the boiler house, containing the central heat and power plant; and a foundry.

DEPARTMENT OF CHEMISTRY This department is located in the chemistry building, occupying the basement, a lecture room, quantitative laboratory, and offices on the first floor, the entire second floor, and the attic—the remainder of the building being occupied by the experiment station. The lecture room seats comfortably seventy-five students, besides containing desks and extensive equipment for demonstration purposes. Quantitative, qualitative, and private laboratories and sample rooms occupy the second and third floors and one room on the first floor. A special agricultural laboratory is fitted up for senior students in agricultural chemistry. The laboratories are fitted with work desks designed to meet the demands of the student. Each

student has before him two gas cocks, two water cocks, and a trough of running water, and thus need never leave his desk unless it be for a special reagent or for work at the hydrogen-sulfid hood. There is located in the basement of the building a 150-light Tirrill equalizing gas machine, which furnishes light and laboratory heat of the finest quality. The department is equipped with the best of modern apparatus, glassware, and chemicals. This large supply of working material greatly facilitates independent laboratory work. In the more advanced work the student is supplied with a complement of burettes, pipettes, graduated flasks, desiccators, Gooch crucibles, etc. It is the experience of instructors in teaching quantitative analysis that the best results are obtained by having not more than three, preferably two, students for each analytical balance. In recognition of this, the department is equipped with two E. & A., one Rueprecht, one Staudinger, and seven Sartorius analytical balances. There are in addition to these, one E. & A. assay balance, one gas analysis balance, and three other balances for rough weighing. In sugar and sugar beet analysis, aside from the ordinary methods used, the student is taught the use of the polariscope and has at his disposal one Schmidt and Hænsch polariscope, equipped with a double set of observation tubes. In the study of mineralogy there is a well chosen collection of several hundred specimens, supplemented by about 300 pounds of working material. Aside from these minerals there are 75 glass and 60 wooden crystal models, and 21 models of precious stones.

BOTANY AND ENTOMOLOGY

This department occupies the second floor rooms of the west wing of Library Hall. These rooms are used as laboratories, dark room, store room, lecture room, and office, the lecture room being in direct communication with the biological museum. The equipment of the laboratories includes twenty-four compound microscopes of recent manufacture (five of Zeiss and nineteen of Bausch & Lomb make); a number of compound microscopes designed for special purposes; sixteen simple microscopes, and a large assortment of lenses; a Zimmerman-Minot rotary microtome, a Bausch & Lomb sliding

microtome, and several hand microtomes; camera lucida; photographic and photomicrographic cameras, and accessory apparatus; several hundred microscopic preparations of simple plants and plant tissues; a large collection of preserved plant tissues and pathological specimens for practical study; a fine assortment of chemicals, reagents, and stains; an ample supply of glassware; and a variety of special apparatus for the study of plant physiology. The museum and lecture room contain a large herbarium which includes authentic collections of fungi, algæ, lichens, and mosses; the botanical and entomological collections of the experiment station, which are available for reference; Auzoux models illustrating the anatomy of flowers and fruits; several Auzoux models showing the anatomy of insects; preparations showing the metamorphoses of different types of insects; a set of Kny botanical charts showing the minute details of plant structure and reproduction; a set of Peter charts that show representative plants of many orders; and collections of woods, fibers, seeds, etc., and also of economic, medicinal, and agricultural plants. There are several collections of hardy herbs, shrubs, and trees planted on the college grounds, from which material may be obtained for the use of classes.

ZOOLOGY AND VETERINARY SCIENCE

This department occupies quarters in Library Hall, consisting of laboratories for general biological work,and a lecture room. The apparatus for general biological work consists of twenty compound Zeiss and Lietz microscopes, with complete sets of eye pieces and objectives, micrometers and cameras, microtomes, thirty sets of dissecting instruments, and photomicrographic apparatus. The department is also well supplied with dissectible models of various types of animals, including an Auzoux model of the horse; with skeletons of most of the lower animals and of man; and with numerous prepared skins of birds and animals for purposes of demonstration and instruction. A general museum is being installed. For the work in physiology there are models of the various organs of the body, wall charts, and skeletons, mounted and unmounted.

DEPARTMENT OF AGRICULTURE

Instruction in this department is given in the basement of Central building and in the college barn. The latter is a two-story brick structure, 60 x 96 feet, which, in addition to providing storage space for hay and grain and stabling for live stock, contains a room for stock-judging. The feed lots and corrals have been rearranged in order that the different breeds of livestock may be safely and economically handled. The agricultural and horticultural departments receive great benefit from the experiment station, which is located at the college. This branch of the institution has a large number of experiments continually under way, which constitute the most valuable object lessons to the students. The farm includes 360 acres, three-fourths of which are devoted to agriculture. The experiment station uses all the fields for crop experiments, and thus the student sees the various crops under cultivation; and the study of crop production is further illustrated by a good collection of grasses and field crops exhibited in bundles and show bottles. The livestock equipment affords an excellent opportunity to study the improved breeds of stock. The pure bred stock represented is as follows: cattle, Shorthorns, Herefords, Aberdeen-Angus, and Red Polls; swine, Poland Chinas, Berkshires, Duroc-Jerseys, and Chester Whites; sheep, Shropshires and Cotswolds; horses, Percheron. In addition to the pure breeds of the various classes of stock, grades of the different breeds are kept for comparison. Breeds not represented on the farm are studied from engravings conveniently arranged on wall charts and in albums. The large number of feeding experiments carried on at all times by the experiment station affords the students ample opportunity to apply the principles laid down in the class room. Samples of all standard farm machinery are kept in a commodious implement room where easy access can be had to them, and the student has the opportunity to see these in operation, many of them under draft tests. A farm dairy, fully equipped with hand separators, milk tests, cream vats, milk coolers, and other apparatus which aid in the production of high grade dairy products, is in operation. A two-story stone dairy building is now under construction, and will be finished and equipped in time for next year's work.

DEPARTMENT OF HORTICULTURE This department is equipped with a complete line of garden seeders;tools for lawn work; spray pumps with fittings; eighteen complete sets of garden tools; complete models of all common varieties of apples, peaches, plums, pears, and cherries; charts showing the diseases of fruit and garden plants; an herbarium of cultivated plants showing most of the different plants cultivated in the United States; five complete sets of instruments used in plant breeding; five complete microscopes and accessories. In the way of practical operations, this department is well situated, having at its command the extensive vineyards and orchards of the experiment station. The horticultural grounds include sixty acres with more than fifty thousand trees and vines. For instruction in forestry, a plantation of forty thousand trees is available, both for observation and study, and for instruction in propagation, pruning, and transplanting. A modern greenhouse for the use of this department is now in process of construction and will be ready for occupancy for the coming year.

DEPARTMENT OF DOMESTIC ECONOMY This department is located in the rooms on the first floor of the west wing of Library Hall. The department includes a kitchen laboratory, class dining room, sewing room, office, and store room. The kitchen laboratory has equipment sufficient to enable fourteen students to work at one time, and consists of fourteen conveniently arranged desks, furnished with all the dishes and cooking utensils necessary for individual work; cases for the large utensils and supplies and illustrative material; one gas range, one kerosene range, and three small gas burners on the work desks; charts and samples to aid in teaching and studying the composition and preparation of the different foods. The equipment of the class dining room consists of a full set of dining room furniture and dishes used by the classes studying dining room management and serving. The sewing room is equipped with one large cutting table and six sewing tables, all made with drawers in which to keep garments and material; six sewing machines of different makes; a large mirror for use in dress fitting; illustrative material, such as cotton, silk, and flax fibers, needles, etc.; and twenty-four sewing chairs.

OTHER DEPARTMENTS

The departments of the English language and literature, of foreign languages, and of history and political economy are properly supplied with facilities for instruction, and are represented with special fullness in the library. The department of mathematics and civil engineering has extensive appliances for demonstration. instruction, surveying, and other practical work. The printing office is suitably equipped for instruction, which is its primary purpose. The regular college publication, *The College Paper*, is issued by this department, under student management, and the general job work of the college, including the annual catalogue, is done by it. The department of stenography and typewriting is equipped with eight typewriters, one Elliott & Hatch book typewriter, and other necessary appliances.

AGRICULTURAL EXPERIMENT STATION

This department of the college is maintained for the purpose of conducting experiments relating to the development of our agricultural interests and the widening of our knowledge on subjects in any way connected with farm life. Experiments in crop production, stock raising and feeding, fruit and vegetable growing, are conducted on a 360 acre farm belonging to the college. In the laboratories animal and plant diseases, insects, the composition of feeding stuffs, and kindred subjects are investigated by trained specialists, each of whom has devoted many years to study and preparation for the particular class of work committed to him.

While the station takes no direct part in instruction, its work affords a valuable source of illustration and a stimulus to students in every branch of science. With but two exceptions, members of the station staff are also engaged in instruction in the college. Students showing special aptness are frequently employed in the work of the station and thus gain valuable experience and are enabled to earn something toward paying their expenses.

The chief purpose of the station is to discover new truths and new applications of old ones. It properly leaves to the college the work of instruction in systematized knowledge.

Bulletins reporting results of completed investigations are issued by the station and sent free to all who desire them.

COURSES OF INSTRUCTION

No material changes have been made in requirements for entrance and in courses of instruction since the issuance of the last year book. The preparatory department has been discontinued, though preparatory instruction in the common school branches will be given in the two years' School of Agriculture and Domestic Economy, to the analysis of which on pages 21–22 attention is particularly directed. All regular collegiate courses cover a period of five years, running through the Sub-Freshman, Freshman, Sophomore, Junior, and Senior classes, and leading to the degree of Bachelor of Science. The courses are as follows:

I.—General Science Course.

II.—Agricultural Course.

III.—Mechanical Engineering Course.

In the General Science course the student may take the general scientific and literary studies which have heretofore been offered in the "General Science and Literature" course, or he may take majors in chemistry, botany, or zoology, covering exactly the same scope and character of work heretofore offered in the courses in chemistry and biology. The Agricultural course and the Mechanical course are specialized and technical courses respectively in agriculture, horticulture, and animal husbandry, and in mechanical and electrical engineering.

ADMISSION TO THE SUB-FRESHMAN CLASS

The sub-freshman class has been established to secure, under competent instruction, a higher degree of efficiency in the studies which underlie the more advanced collegiate work, particularly in English and mathematics. Applicants for this class may be admitted without examination on satisfactory records from the eighth grade of city schools, or on diplomas from the common schools. Not holding these, they must pass a satisfactory examination in the following subjects: Reading, spelling, penmanship, geography, United States history,

grammar, and arithmetic. Applicants for this class must be not less than fourteen years of age.

ADMISSION TO FRESHMAN CLASS AND TO ADVANCED STANDING

Applicants for admission to the freshman class must pass an examination in the studies above mentioned, and in higher arithmetic, algebra to quadratic equations, physiology, physical geography, and general history. Students from high schools who have satisfactorily completed the ninth grade may be admitted on trial without examination. Graduates of approved high schools may be admitted to the sophomore class on their diplomas, without examination.

GENERAL SCIENCE COURSE

This course is arranged to the end first, of offering a good general and practical education along scientific and literary lines; second, of giving major work in specific natural sciences, together with an approved amount of instruction in mathematics, literature, language, history, political economy, and other general subjects. Students in this course expecting to specialize in chemistry are advised to take German; all others may take German or Latin.

THE COURSE IN DETAIL

[The figures indicate the number of recitation hours per week; figures in parentheses indicate hours of practical work per week.]

SUB-FRESHMAN YEAR

FALL TERM	WINTER TERM	SPRING TERM
Higher Arithmetic.....5	Algebra..... 5	Algebra..... 5
English.....5	English..... 5	English.....5
Physical Geography.....4	Physical Geography(½t'rm)4	Physiology.....4
Book-keeping..... ...5	Physiology (½ term)..... ..4	General History..... 5
Spelling and Writing....(2)	General History.....5	Spelling and Writing....(2)
	Spelling and Writing..... (2)	

NOTE: A fter fall and winter terms, students proficient in spelling and writing will take printing.

FRESHMAN YEAR

Rehtoric. 3	Rhetoric.. 3	Etymology and Structure.....3
German or Latin. 5	German or Latin.....4	German or Latin.....4
Algebra 4	Algebra 4	Algebra..... 4
Physics..... 4	Geometry.. 5	Geometry.....5
Sewing—women .....(4)	Sewing—women.....(4)	Sewing—women .....(4)
Freehand Drawing.....(4)	Cooking—women 1 (2)	Cooking—women.....1 (2)
Nursery Work—men..1 (2)	Geometrical Drawing....(8) (Men	Stockjudging—men...1 (6)

SOPHOMORE YEAR

Advanced Rhetoric.....2	Theme work.....2	Theme work..... .2
German or Latin... 4	German or Latin.....4	German or Latin... 3
Geometry.....4	Trigonometry..... 4	Trigonometry—men... ..3

Inorganic Chemistry..3 (4)
Zoology..... 3 (4)

Inorganic Chemistry....3 (4)
English History 5
Public Speaking.....(2)

Inorganic Chemistry..2 (4)
Botany..... .....4 (4)
Cooking—women.....2 (6)
Surveying—men.....(4)

JUNIOR YEAR

English Literature.....2
German or Latin.....3
Physics. 4 (2)
Histology, Botany, Feeds and Feeding, Civics and Constitutional Law, Analytical Geometry, Theoretical Chemistry, Domestic Economy (women) } 10

English Literature.....2
German or Latin.....3
Physics.....4
Advanced Physiology, Botany, Farm Dairying, Civics and Constitutional Law, Analytical Geometry, Organic Chemistry, Domestic Economy (women) } 10
Public Speaking.....(2)

American Literature....2
German or Latin..... 3
Entomology or Physical Chemistry } 3 (4)
Cellular Biology, Botany, Crops, Calculus, Psychology, Domestic Economy (women), Organic Chemistry, Electricity } ..10

NOTE: The student is required to elect any two of the subjects above includes in brackets.

SENIOR YEAR

Literature or Agricultural Chemistry } 3
Geology 4 (2)
Law..... 3
Social and Industrial History, Agricultural Physics or Mineralogy, Botany, Embryology, General Chemistry, Calculus, or Sociology } .5 } .4

Literature or Agricultural Chemistry } 3
Advanced Book-keeping and Business Correspondence or General History } 3
Bacteriology.....2 (4)
Forestry or Metallurgy and Assaying } .5
Calculus, Botany, Industrial Chemistry, or Political Economy } .5

Literature or Agricultural Chemistry } 3
Current History 3
Bacteriology..... 2(4)
Botany, Industrial Chemistry, Astronomy or Feeds and Feeding, and Plants and Plant Breeding } .5
Thesis..... .....(10)

NOTE: The right is reserved not to give any elective offered during the junior and senior years for which fewer than five students apply, although the effort will always be made to accommodate every student in this respect.

AGRICULTURAL COURSE

This course is designed to afford scientific training and practical knowledge to young men who expect to follow agriculture as a life work, or to prepare themselves as instructors of others therein. A two years' course (twenty weeks in each year) is also offered, detailed announcement of which is made in another place. The short winter courses in agriculture and mechanics (eight weeks) will be given as heretofore for the benefit of farmers who are not in a position to matriculate as regular students of the institution. These courses are fully set forth on page 22.

THE COURSE IN DETAIL

SUB-FRESHMAN YEAR

The Same as in General Science Course

FRESHMAN YEAR

FALL TERM	WINTER TERM	SPRING TERM
Rhetoric.....3	Rhetoric.... 3	Etymology and Structure.....3
German..... 5	German.....4	German.....4
Algebra.....4	Algebra.....4	

Physics.....4
Freehand Drawing.....(4)
Nursery Work.....1 (2)

Geometry.....5
Wood Work.....(8)

Algebra.....4
Geometry.....5
Stock Judging..... 1 (6)

SOPHOMORE YEAR

Advanced Rhetoric.....2
Geometry.....4
Soils and Fertility.....3 (2)
Zoology.....3 (4)
Inorganic Chemistry..3 (4)

Theme Work.....2
Trigonometry.....5
Pomology.....2
Inorganic Chemistry...3 (4)
Breeds.....5 (4)

Theme Work.....2
Trigonometry.....3
Vegetables and Small Fruits.....3
Inorganic Chemistry..2 (4)
Botany.....4 (4)
Surveying.....(4)

JUNIOR YEAR

Physics.....4 (2)
Feeds and Feeding.....5
Botany.....5
Theoretical Chemistry...5

Physics.....4
Farm Dairying.....3 (4)
Botany.....5
Advanced Physiology.....5
Public Speaking.....(2)

Entomology.....3 (4)
Animal Breeding.....5
Crops.....5
Cellular Biology.....5

SENIOR YEAR

Agricultural Chemistry 3
Agricultural Physics..4 (2)
Geology.....4 (2)
Law.....3
Embryology.....4

Agricultural Chemistry....3
Bacteriology.....2 (4)
Forestry.....5
Farm Economics.....2
Advanced Book-keeping and Business Correspondence or Research Work in Agriculture or Horticulture.....(6)
Evolution of Cultivated Plants.....3

Agricultural Chemistry..3
Bacteriology.....2 (4)
Current History.....3
Feeds and Feeding..... .3
Plant Breeding.....1 (2)
Thesis.....(10)

COURSE IN MECHANICAL ENGINEERING

This course is intended to prepare young men for positions of usefulness and responsibility in the mechanical and electrical professions. The early part of the course is devoted to a thorough grounding in English, mathematics, and physics, mechanical drawing and shop work also being given. The last two years are devoted to the more technical engineering studies, including the higher mathematics, machine designing, steam machinery, and strength of materials. An electrical engineering course is given during the last two years, embracing the subjects of electrical measurements, direct and alternating current dynamos, motors, transformers, systems of power distribution, electric lighting, electric railways, etc.

THE COURSE IN DETAIL

SUB-FRESHMAN YEAR

The Same as in General Science Course

FRESHMAN YEAR

FALL TERM	WINTER TERM	SPRING TERM
Rhetoric.....3	Rhetoric.....3	Etymology and Structure.....3
German.....5	German.....4	German.....4
Algebra.....4	Algebra.....4	Algebra.....4
Physics.....4	Geometry.....5	Geometry.....5
Freehand Drawing.....(4)	Woodwork.....(8)	Foundry and Pattern Making.....(8)
Nursery Work.....1 (2)		

SOPHOMORE YEAR

Advanced Rhetoric.....2
German.....4
Geometry.....4
Algebra.....2
Inorganic Chemistry..3 (4)
Mechanical Drawing....(6)

Theme Work.....2
Trigonometry.....4
Inorganic Chemistry.....3 (4)
Descriptive Geometry.....5
Mechanical Drawing.....(6)
Public Speaking.....(2)

Theme Work.....2
Trigonometry.....3
Inorganic Chemistry..2 (4)
Descriptive Geometry..5 (4)
Mechanical Drawing....(4)
Surveying.....(4)

JUNIOR YEAR

Physics.....4 (2)
Analytical Geometry.....5
Kinematics.....3
Steam Boilers.....3
Blacksmith Shop.....(8)

Physics.....4
Analytical Geometry....5
Applied Mechanics.....3
Valve Gears.....3
Machine Shop.....(10)

Electricity and Magnetism.....4 (2)
Calculus.....5
Applied Mechanics.....4
Indicators.....2
Machine Shop.....(8)

SENIOR YEAR

Calculus.....4
Law.....3
Machine Design.....4 (4)
Electrical Engineering.....4 (6)

Calculus.....4
Advanced Book-keeping and Business Correspondence or General History.....3
Machine Design.....4 (6)
Electrical Engineering..4 (4)

Current History.....3
Thermodynamics.....5
Machine Design.....4
Electrical Engineering...3
Thesis.....(10)

SCHOOL OF AGRICULTURE AND DOMESTIC ECONOMY—TWO YEARS OF TWENTY WEEKS EACH

This course is arranged with a double purpose: First, to provide instruction in agriculture and domestic economy requiring less time than the four years' course, and yet more extensive and systematic than the eight weeks' winter courses; second, to offer, in connection, such instruction in the common school branches as will prepare the student to enter the collegiate work. Applicants must be at least fourteen years of age, and fairly well advanced in the common branches, though they will be received and classified without formal examination. To meet the conditions of many young men and women in the country the course is arranged to begin on October 18, when the fall work on the farm ceases to be pressing, and to close March 16, when the services of the student are likely again to be needed at home. For those who can come at the opening of the fall term (September 12) and remain through the spring term, valuable review work in the common branches is offered, as shown below, both in the five weeks preceding October 18 and the ten weeks succeeding March 16, preparatory to entrance to the sub-freshman class. Students who are reasonably proficient in the common school branches, and students of mature years may take the agricultural and domestic economy work of both years

in one, if they desire, and be excused from the other work of the course.

Following is the course in detail—the figures indicating the number of recitation hours per week, figures in parentheses indicating hours of practical work per week.

FIRST YEAR.

FALL TERM Ten Weeks—Beginning Oct. 18.		WINTER TERM. Ten Weeks—Ending March 16.	
Arithmetic	5	Arithmetic	5
Spelling	3	Grammar	4
Geography	3	U. S. History	4
Writing	2	Veterinary Medicine, and Botany and Entomology	3
Livestock (Boys)	3	Sewing (Girls)	(5)
Sewing (Girls)	(5)	Veterinary Medicine, and Botany and Entomology (Boys)	(4)
Stockjudging (Boys)	(8)	Drawing	(4)
Cooking (Girls)	1 (3)	Cooking (Girls)	1 (3)
Drawing (Girls)	(4)		

SECOND YEAR.

(Also preparing students for Sub-Freshman.)

PRELIMINARY COURSE—Five weeks ending October 18. To be occupied with a review of arithmetic, spelling, geography, U. S. History, writing, and grammar, as covered in first year.

Balance of Fall Term Ten Weeks.		Winter Term. Ten Weeks Ending March 16.	
Grammar	5	Grammar	5
Civil Government and Commercial Law	3	Applied Arithmetic	5
Arithmetic	3	Soils and Crops	5
Horticulture and Floriculture	3	Stock Feeding (Boys)	3
Dairying	2	Sewing (Girls)	(6)
Poultry	2	Chemistry	3
Gardening	(2)		
Dairying	(2)		

SPRING TERM—March 16 to June 7. To be occupied with such studies as are necessary to fit for entrance to the Sub-Freshman Class.

SHORT WINTER COURSES IN AGRICULTURE, HORTICULTURE AND MECHANIC ARTS

During a portion of the winter term practical instruction is given in matters directly related to farming, stock raising, and fruit growing, and the management of steam engines, with special attention to machinery used on farms. Any person over sixteen years of age may take this work, no examinations for admission being required. A circular describing the work of these courses in detail will be issued in November. In 1905, they will cover eight weeks from January 3 to February 24.

The following list contains the work which will be given at that time.

Principles of Breeding—4 lectures.
Study of Breeds—10 lectures.
Stock-judging—10 lectures
Diseases of Live Stock—18 lectures
Stock Feeding—12 lectures
Farm Dairying—9 lectures
Crops for Oklahoma—18 lectures
Farm Machinery and Equipment—12 lectures
Steam Engines and Boilers—8 lectures
Maintaining Soil Fertility—9 lectures
Orchard and Small Fruits—18 lectures
Troublesome Insects—9 lectures
Elementary Botany—9 lectures
Farm Hygiene; Water Supply—10 lectures
Legislation and Laws Affecting Farmers—12 lectures
Farm Accounts, Mortgages, etc.—12 lectures

Work in blacksmithing, steam engines and boilers, veterinary practice, practical horticulture, and dairying will be given in the afternoon insofar as the facilities of the college will allow.

The lectures will be supplemented by practical work in the dairy, barns, shops, and orchards, designed to fix and illustrate the methods and practices advised. It is practical instruction throughout and planned to give the most that is possible in so short a time.

BUSINESS COURSE

A complete business course is offered to students having the qualifications to enter the sub-freshman class (see page 17). The course is as follows:

Fall Term: Book-keeping,spelling and writing, arithmetic, commercial law, English. Or, Stenography and typewriting, spelling, English.

Winter Term: Advanced book-keeping, banking and business correspondence, spelling and writing, arithmetic, English. Or, Stenography and typewriting, spelling, English.

Spring Term: Bookkeeping, arithmetic, English. Or, Stenography and typewriting (including manifolding, letter-press work, typewriter dictation), English.

SPECIAL WORK

Students of reasonably mature years and adequate preparation are permited to select special work under the advice of the faculty.

DEPARTMENTS OF INSTRUCTION

Under this title a more extended account of the topics covered in the different departments will be given.

THE ENGLISH LANGUAGE AND LITERATURE

THE PRESIDENT
PROFESSOR TUCKER

The study of the English language and literature runs through the five years of the General Science course.

1. English. This work extends through the sub-freshman year. It is designed to prepare the student for an appeciative study of rhetoric and composition, as taken up in the freshman year. It comprises: (1) A comprehensive review of English grammar. (2) The study of practical English, in connection with a suitable manual, with the especial object of checking up the ordinary errors and slovenliness of speech. (3) The reading of a number of standard English classics.

2. Rhetoric. This subject occupies the first two terms of the freshman year. The principles of invention, the elements of style, the different forms of composition, and other matters belonging to elementary rhetoric are here taken up preparatory to the advanced study of the same subject the next year and to the writing of formal themes. In connection with this work careful and painstaking instruction is given in punctuation, in letter writing, and in the preparation of manuscript for the press, as well as in the art of expression, both oral and written.

3. Etymology and Structure. The spring term of the freshman year is devoted to this work. It is, in brief, the study of word building, with special reference to the Latin and Saxon elements of the language.

4. Advanced Rhetoric and Theme Work. This extends through the sophomore year. It covers in a more ample and philosophical form the work of the freshman year and gives almost exclusive attention during the last half of the year to practical theme writing. The work beging with the writing of narratives, both imaginative and within the student's experience,

followed by newspaper writing, argumentative writing, and so on to abstract themes. In addition to the regular class-room work in the freshman and sophomore years, a limited number of books are assigned as parallel reading. These books are selected with a view to their adaptability and application to the work in hand, and they constitute the basis of examination at stated intervals during the term.

5. Literature. The Junior year in this department is given to the study of English and American literature. While this year's work is historical, rather than philosophical or critical, yet the subject is presented by periods, the characteristics of which are carefully studied. Extended readings from representative authors are given, the comparative method being constantly kept in view. Written work is required in the discretion of the instructor, both as fixing the student's grasp of the subject, and as further illustrating the principles of rhetoric.

6. Literary Interpretation and Criticism—Masterpieces. The senior year open with a view of the philosophy of the development of our literature, and the principles of literary interpretation and criticism. This work is based upon approved texts, and is reinforced by lectures. The last half of the year is given to the study of masterpieces of the language in poetry and prose, including a critical reading of selected plays of Shakespeare. The course closes with a study of living writers.

AGRICULTURE

PROFESSOR BURTIS
MR. MOORHOUSE
MR. FOSTER MR. RILEY

The following analysis applies to students taking the specialized course in agriculture (see page 19). *It indicates, also, however, the elective work in agriculture and horticulture which is offered in the other courses.

1. Stock – Judging. Freshman year, spring term. A thorough training in score card work. Study of animal form as an index of qualities; selection of animals to give the greatest

excellence in beef, dairy, mutton, wool, and pork products, and in efficiency in labor. One class period a week is devoted to the study of the principles of stock-judging, and three practicum periods a week are devoted to score card practice work at the barns, where the different animals are judged for the purposes for which they are raised.

2. Soils and Fertility. Sophomore year, fall term. Soils, origin, chemical and physical composition; classification; handling to obtain conditions best suited for plant growth; value of manure and fertilizers, their preservation and application.

3. Breeds of Live Stock. Sophomore year, winter term. The leading breeds of cattle, sheep, swine, horses, and poultry are studied as to their origin, distribution, adaptability, and leading characteristics. The stock-judging work commenced in the spring term of the freshman year is continued during this term and particular attention is given to the official scale of points, or the standards adopted by the various associations of the different breeders.

4. Feeds and Feeding. Junior year, fall term. Nutrition; composition of feeds and their preservation as affecting quality; compounding rations for growth, maintenance, fattening, and milk; feeding and preparing stock for market. The work is continued in the spring term of the senior year, when particular attention is given to the results of feeding experiments and methods of carrying on such work.

5. Farm Dairying. Junior year, winter term. A study is made of the methods and apparatus for the production and handling of dairy products in a wholesome and economical manner on the farm. Composition of milk and the causes that affect it and bring about changes. Practical work in milk testting, separating milk, ripening cream, churning, and preparing butter and milk for the market is given in the dairy room.

6. Animal Breeding. Junior year, spring term. The laws of heredity, variation, atavism, and correlation are given special attention. Prepotency and fecundity, and the influences

that affect them are discussed. In-and-in breeding, line-breeding, cross-breeding, grading, and the formation of breeds are taken up in detail.

7. Crops. Junior year, spring term. Choice, uses, and preservation; varieties and their improvements; planting and cultivation; rotations. Examination of crops in the field and from preserved samples given special attention.

8. Agricultural Physics. Senior year, fall term. The study of soils commenced in the fall term of the sophomore year is continued here by taking up the more intricate points of soil physics, as the movement of water in soils, the water-holding power of different soils, and soil temperature. Irrigation and drainage are fully treated. Principles of draft, road construction, farm motors, and construction of farm buildings are subjects of study under this head.

9. Farm Economics. Senior year, winter term. Selection, purchasing, equipping, and management of farms; study of markets and marketing.

10. Research Work in Agriculture or Horticulture. Senior year, winter and spring terms. In this work the student is expected to select some subject for investigation and review, and to plan and execute experiments to bring out new facts or confirm those obtained by others—the results of such investigation to be presented as a graduation thesis.

Note: For analysis of the course in agriculture in the School of Agriculture and Domestic Economy see page .45

HORTICULTURE

PROFESSOR MORRIS

The instruction in horticulture aims to give the student a thorough knowledge of the underlying principles of plant and fruit production, and of plant evolution; the instruction in forestry to afford an insight into the forest problems of the United States.

1. Nursery Work. Fall term of freshman year. Study and practice of methods of propagating plants, and nursery management.

2. Pomology. Winter term of sophomore year. Study of orchard fruits, and cultivation and management of orchards.

3. Vegetables and Small Fruits. Spring term of sophomore year. Study of vegetable gardening and small fruit culture.

4. Evolution of Cultivated Plants. Winter term of senior year. A study of the current hypotheses of organic evolution as applied to the modification of plants, particularly those in cultivation.

5. Plant Breeding. Spring term of senior year. Study and practice in plant breeding.

6. Forestry. Winter term of senior year. The instruction in forestry covers conditions of forest growth, methods of reproduction, preservation, and harvesting; economics of forestry; forest belts, forest reserves, and national parks of the United States.

Note: For analysis of the course in horticulture in the School of Agriculture and Domestic Economy see page 45.

MECHANICAL ENGINEERING

PROFESSOR CHANDLER
MR. THOMAS
MR. LITTLE

The following analysis applies to students taking the mechanical engineering course (see page 20). It indicates also, however, the elective or regular work in the other courses as shown in the detailed outlines.

1. Freshman Physics. Freshman year, fall term. Elementary course in general physics.

2. Descriptive Geometry. Sophomore year, winter and spring terms. Orthographic projection of lines, planes, and surfaces. Axonometric projection, surfaces of the second order; intersections, shades and shadows, and linear perspective.

3. Mechanical Drawing. Sophomore year; fall, winter, and spring terms, afternoon. Projection on right and oblique

planes, intersections of surfaces and solids; machine sketching; making of complete working drawings, tracing and blue-printing.

4. Kinematics. Junior year, fall term. Study and design of mechanical movements, including gearing, belting, links, etc.

5. Junior Physics. Junior year, fall and winter terms. Advanced course in mechanics, sound, heat, light, and electricity.

6. Applied Mechanics. Junior year, winter and spring terms. Statics, moment of inertia, hydrostatics, hydraulics, theory of structures, kinetics.

7. Steam Boilers. Junior year, fall term. Materials of construction, steam boiler design, care and operation of boilers.

8. Indicators and Valve Gears. Junior year, winter and spring terms. Detailed study of valve gears and of valve setting; use of indicators.

9. Thermodynamics. Senior year, spring term. Advanced discussion of the theory of heat engines.

10. Machine Design. Senior year; fall, winter, and spring terms; with afternoon work in drawing in the fall and winter terms. Determination of the proper proportion of machine parts, such as screws, bolts, nuts, shafts, and pulleys; also the designing of the various parts of the steam engine.

11. Electricity and Magnetism. Junior year, spring term. Advanced study of electrostatics, magnetism, electric current, and batteries. The elements of alternating currents, electric lighting and power.

12. Electricity and Magnetism Practicum. Junior year, spring term. Measurement of magnetism, resistance, and electromotive force; study of batteries; use of galvanometers.

13. Electrical Engineering. Senior year, fall, winter, and spring terms. Electromagnetism and magnetic circuit; direct and alternating current dynamos and motors; electric lighting; electric railways; systems of transmission and distribution.

14. Electrical Engineering Practicum. Senior year, fall and winter terms, afternoon. Tests of dynamos, motors,

transformers; direct current, and one, two, and three phase systems; study of arc and incandescent lamps, measurement of power and efficiency.

15. Wood Working. Freshman year, winter term. Bench work in wood: sawing, planing, and joining; center and chuck turning in wood. Instruction in care and use of tools.

16. Pattern-Making and Foundry. Freshman year, spring term. Construction of patterns; moulding in sand; core making; melting iron and pouring castings.

17. Blacksmithing. Junior year, spring term. Iron and steel forging; drawing, upsetting, welding, and tempering.

18. Machine Shop. Junior year, winter and spring terms. Filing and chipping; metal work on lathes, planer, shaper, and milling machine.

MATHEMATICS AND ASTRONOMY

PROFESSOR MEANS
MR. ADAMS

1. Higher Arithmetic. Fall term, sub-freshman year. A thorough course in advanced arithmetic giving special attention to the application of the principles of percentage to the solution of problems.

2. Algebra. Winter and spring terms, sub-freshman year, and fall, winter, and spring terms, freshman year. A thorough drill in the elements of algebra, involving factoring, fractions, simple, simultaneous, quadratic, and indeterminate equations, inequalities, theory of exponents, logarithms; ratio, proportion, and variation; the binomial and exponential theorems; choice, chance, etc.

3. Geometry. Winter and spring terms, freshman year, and fall term, sophomore year. The elements of plane and solid geometry, involving the relations of lines and planes in space, the methods of proving theorems, the areas of surfaces and volumes of solids, and the laws of variation in similar surfaces and solids.

4. Trigonometry and Surveying. Winter and spring terms, sophomore year. The development and use of trigonometric formulæ, the solution of right and oblique triangles and polygons. Field work in surveying. Also, elements of goniometry. Logarithmetic computation throughout course.

5. Analytical Geometry. Fall and winter terms, junior year. The reference of points and lines to co-ordinate axes, and the deduction of the equations of straight lines and curves of the conic sections. Also, higher plane curves.

6. Calculus. Spring term, junior year, and fall and winter terms, senior year. Differential calculus, development and application of fundamental principles and formulæ, integral calculus, determination of formulæ, application in determining length of curves, area, maxima, minima, etc.

7. Astronomy. Spring term, senior year. The solar system, discussion of position, size, density, rotation, and revolutions of planets; satellites and asteroids, nebulæ, fixed stars and constellations, comets, astronomical directions, measurements, etc.

CHEMISTRY

PROFESSOR HOLTER
MR. HOOVER

1. General Course. All students in all courses are required to take chemistry throughout the sophomore year. In the fall term the non-metals are studied and discussed in the lecture room, and simple manipulations, preparation of salts and gases, and group separations are taught in the laboratory. In the winter and spring terms the metals are taken up in the lecture room and complete qualitative analysis worked out in the laboratory. Each student is supplied with a full set of apparatus suitable to his work and is required to spend at least two hundred hours in the laboratory during the year. It is found that each year there are students who work in the laboratory over two hundred and fifty hours. While the laboratory period is from 1:30 to 3:30, it is the custom, as well as the policy, of the department to open the laboratory immediately

after the noon hour and allow students to remain until five o'clock if they desire to do so. Again, while there are assigned days for laboratory work in chemistry, all students working in the chemical laboratories have permission to work there on any other days so long as this work does not interfere with other college duties. In the lecture room special attention is given to the arithmetic of chemistry and the working out of chemical equations, and in these equations much importance is attached to their graphical structure. Experience teaches that without the arithmetical applications of the equations by means of numerous practical problems, the fundamental principles involved in the equations are wholly lost on the average student. Text books used are: Pond's Inorganic Chemistry in the class room; and in the laboratory, Dennis and Clarke's Laboratory Manual and Dennis and Whittelsey's Qualitative Analysis.

2. Specialized Course. Junior year: Qualitative Analysis; using in the laboratory Talbot's work during the entire year, supplemented by Fresenius, Thorp, etc. Minimum number of hours, 260. In the class rooms the texts used are: Fall term, Remsen's Theoretical Chemistry; winter and spring terms, Perkin and Kipping's Organic Chemistry; and in the spring term three hours a week are devoted to a general discussion of mathematical and physical chemistry, Van Deventer's text being used. The recitations are very fully supplemented by numerous discussions, lectures, and demonstrations.

Senior year: In the lecture room, in the fall term, special subjects along the lines of sanitary chemistry, foods and food production, pure water supplies, and sewage disposal are discussed. No text book is used but the lectures and discussions are based upon the material found in the numerous reference books in the college library. Metallurgy is taught in the winter term, Hiorns's text book being the one now used and Thorp's Industrial Chemistry is taught during the winter and spring terms. Three hours a week are devoted to Agricultural Chemistry during the entire year in the lecture room.

The laboratory work has a wide range and includes the chemistry of experiment station work, metallurgy of iron and

steel, assaying, sugar analysis, water analysis, sugar beet analysis, food adulterations and their detection, preparation of organic compounds, mineralogy, standardizing solutions, abstracting of chemical literature (in connection with special laboratory work), graduation thesis.

BOTANY AND ENTOMOLOGY

DR. SHAW
MR. LEWIS

1. Elementary Botany. A study of a series of representative types chosen from the principal groups of plants forms the basis of an outline of the general morphology and classification of plants, and of their physiological and ecological relations.

Lectures and recitations four hours per week, laboratory work two afternoons per week, in the spring term.

Required of all sophomores in the general science and agricultural courses.

2. Anatomy of the Spermatophytes. A study of the structures and activities of the plant cell, followed by a study of the anatomy and histology of typical seed plants. In the laboratory the general methods of botanical microtechnique are employed by the student.

Lectures and recitations three hours per week, laboratory work two afternoons per week, in the spring term.

Required of juniors specializing in biology, and elective for other juniors in the general science course and in the agricultural course.

3. Plant Physiology. A course of carefully selected laboratory experiments forms the basis of a study of the general functions of seed-plants.

Lectures and recitations three hours per week, laboratory work two afternoons per week, in the winter term.

Required of juniors specializing in biology, and elective for other juniors in the general science course and in the agricultural course.

4. Plant Diseases. A study of the more common and economically important diseases of plants which are due to the

presence of bacteria, myxomycetes, and fungi. Laboratory work on the morphological characters of the pathogenic organisms, and culture and inoculation experiments with them.

Lectures and recitations three hours per week, laboratory work two afternoons per week, in the spring term.

Required of juniors specializing in biology, and elective for other juniors in the general science and agricultural courses.

5. The Natural Families of the Spermatophytes. A study of the main diagnostic characters of the leading families of the seed plants. The laboratory work includes the identification of all the common seed plants of the local flora. It will be supplemented with field work planned with reference to the ecological side of the subject.

Lectures and recitations twice per week, laboratory work two afternoons per week, in the fall term.

Required of seniors in the general science course electing a thesis in botany, and elective for seniors in the agricultural course.

6. Morphology of the Spermatophytes. A study of the comparative morphology and embryology of the seed-plants. The laboratory work deals mainly with sporogeny and embryogeny of types.

Lectures and recitations twice per week, laboratory work three afternoons per week, in the winter term.

Elective for seniors in the general science course.

7. Research and Thesis Work. Seniors in the general science course who elect to write their theses in botany will choose subjects approved by the head of the department not later than the beginning of the winter term. These theses will be completed in the spring term. In 1905 subjects may be chosen from the following lines of work:

a. Plant Cytology.
b. Histology of Selected Plants or Organs.
c. Physiology and Morphogenesis.
d. Plant Industry.

8. Entomology. A study of the groups of insects with special attention to those which are of economic importance.

Laboratory work on the anatomy and morphology of selected types of insects.

Lectures and recitations three times per week, and practical work two afternoons per week, in the spring term.

Required of juniors in the general science and agricultural courses.

NOTE: For analysis of the course in botany and entomology in the School of Agriculture and Domestic Economy see page 45.

ZOOLOGY AND VETERINARY SCIENCE

DR. LEWIS
MR. NICHOLSON

The work in this department is arranged with the idea of giving students who take the course in biology or those who elect work in the department as thorough an understanding of animal biology as the time will permit. The greater portion of the work is arranged and given with the idea of familiarizing the student with the general principles of the structure, function, and development of the animal body. The special subject of veterinary medicine as applied to the recognition and treatment of animal diseases is given in the special courses as offered by the agricultural department. An outline of the work follows:

1. VETERINARY MEDICINE. This work is given in both of the short courses offered by the agricultural department. The work is given in the form of lectures, recitations, and practical work. It is of a practical character and comprises especially the recognition and treatment of the common animal diseases.

2. PHYSIOLOGY. Elementary physiology is given during the last half of the winter term and in the spring term of the sub-freshman year. The work is given as lectures and recitations, supplemented by the use of models, skeletons, and charts.

3. ZOOLOGY. This subject is required of all students except those in the engineering courses, in the fall term of the sophomore year. The work includes the general principles of zoology and serves as an introduction to the advanced work in biology. Laboratory work is given four hours per week, in dissecting types of the various groups of animals, the later portion of the work being devoted to the classification of vertebrates,

especially birds. The museum contains collections of insects, birds, small mammals, and a considerable number of marine animals, all of which are available for class and laboratory work.

4. Histology. An introductory study of animal tissues. Special attention will be given to the structure and function of the various tissues of the body. The laboratory work consists of the preparation, staining, sectioning, and mounting of tissues for microscopic work. The projection microscope will be used in the lecture room. This subject is given in the fall term of the junior year.

5. Advanced Physiology. Winter term of junior year. This term will be devoted to detailed study of the special physiology of the blood, nervous system, digestion, etc., and in a comparative way the physiology of man and the lower animals. Mammalian dissection will be taken up during the last half of the term. Discussion of general subjects in physiology will be a part of the required work.

6. Cellular Biology. This work is given in the spring term of the junior year and consists of a systematic study of protoplasmic structure and function, the general properties of the cell as an independent organism and its function in the higher animal. The laboratory work consists of working out the standard methods employed in preparing material for studies of this character.

7. Embryology. This work is given during the fall term of the senior year and includes a detailed study of the development of vertebrates, using embryos of the chick and rabbit as types. The complete embryological history of the chick will be studied as outlined by Foster and Balfour. In the laboratory work the student will be expected to become thoroughly familiar with the best methods used in work of this character. The projection microscope will be used in the lecture room and material prepared by the class will be used for demonstration.

8. Bacteriology. The work in bacteriology extends over the winter and spring terms of the senior year and is required of all students except those in the engineering courses. This is

a general course in bacteriology and the student is required to be thoroughly familiar with laboratory methods. The course in laboratory work requires the student to be familiar with the methods employed in isolating and cultivating bacteria, bacterial analysis of air, milk, water, etc. The subject is given with special reference to the relation of bacteria to disease. Diseases caused by protozoa and certain other animal parasites will be studied in connection with the subject.

GERMAN AND LATIN

PROFESSOR TUCKER
MISS WALKER

The courses in German and Latin run through the freshman, sophomore, and junior years of the college. All courses leading to a degree include a certain amount of one or the other of these languages. This amount can be ascertained by reference to the detailed schedules. One of the main objects of the courses is to give the student such a knowledge of German and Latin as will be of practical value to him in the study of the sciences. Throughout each course the technical relation of the language to the work of the institution is pointed out, explained, and emphasized. At the same time the other objects of language study are not neglected: The study of the language in and for itself, as a means of general culture, and as a prerequisite to a more intelligent and more comprehensive study of the vernacular. The courses in detail are as follows:

GERMAN. Freshman class. The work of this year is devoted to a thorough drill in pronunciation, the mastery of the forms and inflections of the various parts of speech, the study of elementary principles of syntax, and the reading of German prose. Memorizing of easy colloquial sentences and of a few selected poems; written exercises. Text books: Joynes–Meissner's German Grammar; Guerber, *Mærchen and Erzæhlungen;* Storm, *Immensee.* (Fall term, five hours; winter and spring terms, four hours per week.)

Sophomore class. The work of this year is practically a continuation of that of the freshman year. Reading of narrative and descriptive prose; systematic drill in grammar and word formation. Composition work is begun, and one term of this

year is devoted to the study of scientific German. Text books: Riehl, *Der Leibmedikus;* Wildenbruch, *Das edle Blut:* Baumbach, *Der Schwiegersohn;* Gore's German Science Reader; Bernhardt's German Composition; Joynes-Meissner's German Grammar. (Fall and winter terms, four hours; spring term, three hours a week.)

Junior class. It is the aim of this course to broaden the student's vocabulary and knowledge of the language and literature by copious reading from standard German authors and by the study of German literature under the guidance of a suitable manual. Composition work continued. Parallel reading in general literature or in the science in which the student has chosen his special work. Text books: Schiller, *Wilhelm Tell;* Lessing, *Minna von Barnhelm;* Heine, *Harzreise;* Harris's German Composition; Hosmer's German Literature. (Class meets three times a week throughout the session).

Latin. Freshman class. This class is employed mainly in mastering the forms of nouns, pronouns, verbs, adjectives, and adverbs, and in acquiring a vocabulary. The elementary rules of syntax are also studied and carefully explained. Careful attention is given to the translation of English into Latin and to the translation of such Latin as the time will permit. Text books: Collar's First Year Latin; *Gradatim* or *Viri Romæ.* (Fall term, five hours; winter and spring terms, four hours a week).

Sophomore class. The work of this year is devoted to the study of Latin prose and the more difficult principles of Latin syntax. The selections for reading are supplemented by notes and grammatical references by the teacher. It is the purpose of these notes to assist in *accurate* translation, as well as to enable the student to see for himself the practical application of the rules of grammar. Weekly exercises in composition. Text books: Cæsar, *Gallic War;* Cicero, *Orations;* Allen and Greenough's Grammar; Bennett's Latin Composition. (Fall and winter terms, four hours; spring term, three hours a week).

Junior class. The work of this class is along the same lines as that of the preceding year. Prose composition emphasized with a view to strengthening the student's knowledge of Latin

grammar; in connection with the translation, a brief study of the social and political life of the Romans. Throughout all the courses an attempt is made to secure a high degree of mental training, as well as to teach Latin as an invaluable aid to the study of English. Text books: Cicero, *Orations* and *Letters;* Sallust, *Catiline;* Moulton's Exercises in Latin Syntax; Allen and Greenough's Grammar. Class meets three times a week throughout session.

HISTORY AND POLITICAL SCIENCE

PROFESSOR HUTTO

This department gives instruction in general history, English history, constitutional law, political economy, business law, social and industrial history of the United States, current history, and psychology.

1. General History. Sub-freshman year, winter and spring terms, four hours each week. After a general view of oriental civilizations, with special reference to those which noticeably affected subsequent European conditions, special attention is given to Grecian and Roman history. The period of the middle ages is then taken up, followed by a study of modern history. The historic facts here taught are those of most value to the student in the pursuit of subsequent studies in this department. It is the constant thought to have the student discover something more than unrelated facts and dates—to trace causes and results, and to get at the story of the development of the race.

2. English History. Sophomore year, winter term. A general view of the history of the English people, designed to prepare the student for the study of constitutional law and English literature, and to give him a better understanding of United States history. Text, "Leading Facts of English History", by D. H. Montgomery.

3. Constitutional Law. Junior year, fall and winter terms, five hours each week. The constitutional law here taught is general. The course opens with a study of Greek and Roman laws that became constitutional by usage, and follows their progress and influence through the middle ages and their effects

on the formation of fundamental laws in the modern nations. The student is taught the origin of our constitution and the reasons for its provisions, limitations, granted powers, etc. "The State" by Woodrow Wilson is the text used.

4. Political Economy. Senior year, winter term, five hours each week. The nature and laws of wealth, labor, capital, money, credit, taxation, production, and distribution are taught with special reference to the industrial arts.

5. Law. Senior year, fall term, three hours each week. The student uses a text, but this is supplemented by twenty-eight lectures, covering those laws of business that are believed to be useful to him in his actual business life. It is especially designed to give the student a foundation for "Advanced Bookkeeping and Business Correspondence."

6. Social and Industrial History of the United States. Senior year, fall term, three hours each week. The history of the United States is a prerequisite to admission to the college; but it is thought that a more philosophical view of the subject should be afforded the student when he reaches maturer years.

7. Sociology. Senior year, fall term, four hours each week. The student is taught the origin and scope of society; the natural history of a society; social anatomy and pyhsiology; social psychology and pathology; and the laws governing reform. The text is "An Introduction to the Study of Society", by Small and Vincent, and the scope of this work is enlarged by lectures.

8. Psychology. Junior year, spring term; five hours each week. While the student is invited to discuss such prominent theories as double consciousness, mental evolution in man, hallucination, hypnotism, etc., he is constantly drilled in the practical rules for the proper development of the perceptive faculty, the cultivation of imagination and memory, and the proper direction of the emotions and the will. The text book is by Reuben Post Halleck, "Psychology and Physic Culture".

9. Current History. Spring term, senior year. A study of current events throughout the world, and of present social, industrial, political and religious conditions in the leading

nations. Domestic and foreign magazines and newspapers will constitute the text for this course.

DOMESTIC ECONOMY

MISS GARDINER
MISS MORROW

The purpose of introducing the study of domestic economy into the college course is to afford a training in the special subjects which must be considered in the arrangement and management of every home. The best provision for the material wants of the household can be made only by those who have been trained for this work; and such a training is not only practical from a utilitarian point of view, but is educative in the best sense. It is believed that by the practical and scientific study of home problems young women will come to see more than mere routine in the household duties. The work in this department has been arranged consecutively so that the instruction received one term prepares the student for the next term's work; and the endeavor is to have it all correlated with the work of the other departments. This work is not planned to be given separately from other college studies; it is but one of the many lines of study provided for the young women of the college, and is subject to the usual regulations regarding entrance requirements, examination, and class records. A brief outline of the work planned for the coming year follows.

Sewing. Freshman year, fall term. The student receives instruction in the elements of sewing, including different stitches, seams, hems, darning, etc., and the different fibers and fabrics—their preparation and manufacture. Order, neatness, and care of material are insisted upon.

Freshman year, winter term. The second term's work in sewing consists of drafting, cutting, and making underwear. Thorough instruction in the use, care, and management of sewing machines is given to each student.

Freshman year, spring term. The work in sewing this term consists of cutting and making shirt waists and wash dresses.

Junior year, winter term. The work in the sewing department is resumed this term and the student takes up more advanced dressmaking. Pattern drafting and dress cutting are taught, and the student becomes perfectly familiar with a good and reliable dress cutting system. A woolen suit is made, and due attention is given to the study of form and color.

Cooking. Freshman year, spring term. The study of foods is begun this term. The work consists of practical work in the preparation of the common, simple foods, and a study of the character and composition of food materials. Along with this first food work the study of hygiene is begun, which considers the health of individuals as dependent upon food, personal cleanliness, and proper habits.

Freshman year, spring term. The food work and hygiene of this term is a continuation of the work outlined for the last term, the work being more advanced in character.

Sophomore year, spring term. The practical and theoretical work with foods is taken up again this term, and includes the study of food combinations, preparing of meals, dining room work, and dietary study.

Junior year, fall term. During this term the students are given practical work in the preservation of foods—canning, preserving, pickling, jelly making, etc., and also some lessons in the more advanced fancy cooking and serving. Two hours per week are devoted to the study of home sanitation.

Sewing and Cooking. Junior year, spring term. The first half of the term is given to further practical work in sewing, making of fancy waists or dresses. During the second half of the term the student receives instruction in invalid cookery and care of the sick.

PUBLIC SPEAKING

This work is given for the present by the President of the college. All sophomores, and all juniors except those in the course in mechanical engineering, are required to take it during the winter term. So far as the work is carried at present the

aim is to secure, in as great a degree as is possible, ease and grace of ordinary public expression.

GEOLOGY AND MINERALOGY

A course in general and economic geology is given in the senior year. As stated on another page (see Professor Holter's statement under "Chemistry") the college is well equipped for practical and scientific work in mineralogy.

STENOGRAPHY AND TYPEWRITING

MR. CAWOOD

Those desiring to enter this department must be prepared at least to enter the sub-freshman class, and must be not less than eighteen years of age. Students having a good common school education may finish the course in shorthand in from six to nine months. The length of time required to complete the course depends entirely upon the energy, ability, and previous training of the student. The general requirements of a competent stenographer do not consist simply of the ability to write shorthand. There must be a knowledge of composition, punctuation, capitalization, grammar, spelling, and the proper arrangement of sentences. For this reason we require students before finishing the course to pass a satisfactory examination upon the subjects named above in addition to the regular examination in shorthand.

Typewriting requires from three to six months of steady application to gain a satisfactory speed. Students studying stenography will also be required to learn typewriting.

In addition to the work done in stenography and typewriting students are drilled in the use of letter press copying, indexing, letter filing, manifolding, neostyling, and copying by means of hektograph ribbon on pads.

For finishing in this department a speed of one hundred words per minute of new and miscellaneous matter from dictation, the same to be read back accurately and promptly, is required. Upon the typewriter the student must be able to write thirty words per minute from his short hand notes, the work to be free from errors.

BUSINESS COURSE

MR. CAWOOD

This course extends through the year. In addition to the instruction in stenography and typewriting outlined above, a complete course is given in bookkeeping, its several branches and specialties, in commercial law, business forms, and business correspondence. All students in this course are required to take English under the direction of the faculty.

PRINTING

SUPERINTENDENT GELDER

This subject is given in the winter and spring terms of the sub-freshman year to those students who are proficient in spelling and writing, and at all other times to such students as desire instruction therein. The student is first taught the mechanical requirements of composition. After becoming familiar with this work special attention is given to spelling, capitalization, syllabication, punctuation, and correcting proof. The student is also given practical instruction in imposition, making ready on platen presses, and feeding and care of job presses. The college and station jobbing work, including catalogues and announcements, is done here, and a monthly publication, *The College Paper*, is issued from the press. Students assist in all this work, and *The College Paper* is a student publication, though speaking officially for the college.

DRAWING

All students of the freshman class take freehand drawing during the fall term. Men alone in this class take geometrical drawing during the winter term. For the work in mechanical drawing reference is made to the outline of the department of Mechanical Engineering, page 28.

LABORATORY AND FIELD WORK

Paramount stress is laid upon the experimental and practical work of the laboratory, and the afternoons are given over to this character of instruction. In agriculture and horticulture, the livestock, the implements of husbandry, the green-house,

the forestry plantations, and the farm itself with its operations, constitute the laboratory. In mechanical engineering, the wood working shops, machine shops, electrical shops, foundry, and blacksmith shops are in operation for practical work by the students. In chemistry, the quantitative and qualitative laboratories are occupied by students practically every afternoon throughout the academic year. In botany and entomology the afternoon work is devoted to examination, analysis, and classification under the microscope. In zoology and comparative anatomy, practical work is given in the afternoon in connection with living, mounted, and unmounted subjects and with models. In bacteriology the laboratory work is devoted to the identification of bacteria, the action of disinfectants, the growing of colonies, the examination of substances for bacteria, etc. Freehand and mechanical drawing, bookkeeping, and surveying are also given in the afternoon. In domestic economy the kitchen, dining room, and sewing room are constantly occupied for practical work in these lines.

SCHOOL OF AGRICULTURE AND DOMESTIC ECONOMY

As indicated elsewhere this course covers two years of twenty weeks each, from October 18 to March 16. Experience has shown that many young people come to this institution who for various reasons can remain but one or two years. This course is arranged to the end of giving them a measure of the practical and technical work which is given in a more ample form later in the course. At the same time work in the common school branches is given throughout the course, which will prepare the student to go on with the collegiate work if he has the opportunity to do so. The course is so arranged that the work in agriculture or domestic economy scheduled for the two years may be taken in one, without carrying the common school studies. This will be permitted in the case of students who are well grounded in the common branches, or in the case of adult students regardless of their preparation. The special work in agriculture will be for boys and men alone, and will be based upon the following outline.

Livestock and Stock-Judging. This work is taken up during the fall term of the first year. The most important breeds of cattle, sheep, swine, and horses are studied as to their leading characteristics and adaptability; methods of handling these for best results are given due consideration. The stock-judging work is carried on at the barn where the student is first given score card work and then comparison of the various individuals and breeds.

Dairying. In the fall term of the second year the best methods of handling and profitably disposing of the milk on the farm are taken up. The need of care and cleanliness is emphasized, and simple and economical methods are given and briefly illustrated. A well equipped dairy building gives opportunity for the practical work in butter making and milk testing.

Poultry. The time allotted to this study in the fall term of the second year will be devoted to a study of the most important breeds of chickens and other fowls. The rearing, management, dressing, and marketing of poultry will be important features considered.

Soils and Crops. During the spring term of the second year a study of the characteristics of soils as influencing their water-holding power, the liberation of plant food and its availability, are taken up, as well as the general questions of soil tillage. Following this comes the study of the adaptability of crops to different conditions and for different purposes, their selection, improvement, harvesting, and marketing.

Stock Feeding. This subject is taken up during the spring term in the second year. In the work, the composition of plants and animals is compared; the nutritive value of the different feeds is studied; compounding rations for fattening and growing the different kinds of stock is an important and interesting feature of the work.

Veterinary Medicine. A practical study of the recognition and treatment of the common animal diseases.

Horticulture and Floriculture. School of Agriculture, fall term of second year. A study of the most successful

methods of planting and cultivating fruit trees, berries, grapes, flowers, etc. in this climate. Lectures and text. The work in gardening will be practical work in planting seed, transplanting plants, budding, grafting, and pruning.

Entomology. The commoner insects and means for their destruction are considered. Different types of spraying apparatus and a large collection of insects are used to illustrate and supplement the lectures.

Botany. The fundamental principles of germination, plant growth, and seed production are presented, and a general consideration of the adaptation of different plants to varying conditions, thus enabling the student to acquire a more thorough understanding of the growth of plants and their requirements.

The work in domestic economy is designed for all the young women in this department, and it will be the purpose to give them such training as will fit them for the duties of every day life. The aim is, not merely to impart the technical skill and knowledge so desirable for those who provide for the wants of the home, but to train girls to a broader and more scientific view of the whole range of subjects allied to the proper management of the home. The work consists of lectures and laboratory practice in both cooking and sewing.

Cooking. Fall term, first year. The work in cooking for this first term is quite elementary, and of a very practical nature, consisting of the study of the more common food materials and their preparation.

Winter term, first year. The food work of this term is a continuation of the work commenced in the fall, with a few lessons in serving and lectures on the care of foods and household management.

Sewing. Fall term, first year. Five hours a week are devoted to lectures and practical work in sewing, consisting of the study of fabrics and materials used, and the making of samples upon which are taught all the different stitches, seams, hems, etc.

Winter term, first year. The more advanced sample work is finished this term, then the drafting and making of underwear is commenced. The student is taught the proper use of the sewing machine.

Winter term, second year. The work in this department this term consists of the making of plain garments and shirt waists.

SPECIAL STUDIES

Students, not candidates for degrees, may take such special work as they desire, subject to the approval of the President: Provided, That no student shall be entitled to take such special work until he is adjudged to be able to enter the sub-freshman class; Provided further, That students of mature age, not candidates for a degree, may elect special studies, with the consent of the President, without being compelled to fulfill the entrance requirements above mentioned, if in the judgment of the head of the department concerned, such student can successfully carry the work. Regular students in good standing may take work additional to their prescribed course with the consent of the President and the heads of the departments concerned. A student not in good standing in any regular course will not be permitted to change to a special course.

ELECTIVES

Students must hand to the secretary of the faculty, not later than June first in each year, a list of first and second choice electives which they have chosen for the next year. Work in the departments of Botany, Chemistry, Domestic Economy, Mathematics, and Zoology is continuous, and in order to elect specific work in any of these departments all previous work must have been taken. This statement does not apply to agricultural chemistry during the senior year.

GENERAL INFORMATION

LOCATION The seat of the Agricultural and Mechanical College is Stillwater, in Payne county, a city of four thousand people, most beautifully and healthfully situated. It is on the line of the Oklahoma Eastern branch of the Atchison, Topeka, and Santa Fe railroad.

MORAL INFLUENCE All the leading churches are represented in Stillwater and the students are encouraged to attend and participate in their services. As a matter of fact, the young people's societies of the several churches are sustained very largely by students from the college. A Young Men's Christian Association and a Young Women's Christian Association are actively engaged in the numerous and beneficial lines of work characteristic of these organizations among students.

BOARD AND ROOMS Board with room in private families can be obtained for $2.50 to $3.00 per week. Furnished rooms $1.50 to $3.00 per month, if two occupy the room. A considerable portion of the students board in students' clubs, thus reducing expenses in that line to $1.75 to $2.00 per week.

OTHER EXPENSES Tuition is free. An incidental fee of one dollar per term is charged students entering from Oklahoma and Indian Territories. A fee of five dollars per term is charged students under twenty-one years of age entering from elsewhere. Text books will cost from $3.00 to $5.00 per term. Special students in stenography and typewriting are charged $2.00 per term for the use of typewriter. A deposit of $2.00 per term is required of all students in the sophomore class in chemistry to cover laboratory breakage.

LIBRARY The use of the college library is free to all students. Every department of the college is largely represented in it, and it contains, besides, numerous reference books, and the principal home and foreign periodicals. Students are permitted to consult freely, in the reading room, the reference books and periodicals, and to take to their rooms all other books under proper restrictions.

LITERARY AND OTHER SOCIETIES

General literary societies are always in operation among the students. The Chemistry Association, the Biological Club, the Mechanical Engineering Society, and the Agricultural Society are organizations of special students in the lines indicated, for supplementary work. The Athletic Association has charge of all local college sports, Field Day exercises (April 22), and of the interests of the institution in the intercollegiate meets. The Oratorical Association has charge of the representation of this college in the preliminary and intercollegiate oratorical contests.

ATHLETICS

Increasing interest is noted in athletic sports, and this interest is deliberately fostered and encouraged by the authorities. Special benefit to the individual student is noted in connection with the general sports which culminate in the annual intercollegiate meets. Nearly all of the young men of the college show in their physical condition the salutary influence of this training, and of the regular and temperate habits that must accompany it. Basketball and tennis are participated in by young women. A commodious and well appointed basement room has been fitted up as a gymnasium for the use of both young men and young women, and it is hoped that a suitable gymnasium building will be erected and suitably equipped during the coming year.

SELF HELP

The operations of the college farm and experiment station are carried on very largely by student labor, for which reasonable remuneration is allowed. This, in connection with other positions about the college buildings and grounds, and such opportunities as are afforded in the city, has enabled a very considerable number of students practically to make their way through the course. Many students are thus assisted and encouraged every year—the preference being given to those whose college work is meritorious. It must not be gathered from this that the college engages to afford employment sufficient to enable every worthy young man to complete the course without other resources. With the growth of the institution has come an increased demand for this employment which it is impossible to meet in full.

PRIZES

A number of permanent prizes have been established for excellence in various features of work. The Wikoff Prize, offered by Hon. Frank J. Wikoff, president of the board of regents, is for scholarship in the senior class, and carries $25, $15 for the first and $10 for the second place. The President's Prize of $10 is offered for excellence in scholarship in the freshman class. The Tucker Prize (trophy or medal), by Professor Robert H. Tucker, is offered for the best English theme written by a sophomore. The first Wikoff Prize was won last year by Cyrus W. Nelson and the second by Robert H. Kerr. The President's Prize was won by Georgia Olentine, and the Tucker Prize by Florence K. Walker.

ROLL OF STUDENTS

Abbreviations: *Gen. Sc.*, General Science Course; *Agr.*, Agricultural Course; *Mech.*, Mechanical Engineering Course.

POST-GRADUATE

Lewis, Arthur Carr (Okla. A. and M. College)		Stillwater

SENIORS

Bowers, Renzo D.	*Gen. Sc.*	Stillwater
Chandler, Frederick F.	*Mech.*	Stillwater
Durham, Samuel B.	*Agr.*	Stillwater
Gilbert, J. Carleton	*Agr.*	Guthrie
Guynn, Porter N.	*Mech.*	Stillwater
Hamblin, Clyde M.	*Mech.*	Newkirk
Jones, Edward L.	*Mech.*	Houston, Texas
Kidd, John W.	*Mech.*	Stroud
Lovett, Amos E.	*Agr.*	Hunter
Marple, Verne	*Gen. Sc.*	Jennings
McBride, John F.	*Mech.*	Stillwater
McCartney, Fred W.	*Agr.*	Stillwater
Morgan, Bernice	*Gen. Sc.*	Stillwater
Nelson, Abigail E.	*Gen. Sc.*	Stillwater
*Parker, Eva G.	*Gen. Sc.*	Cleveland
Stevens, Harry I., Jr.	*Gen. Sc.*	Meeker
Tarr, William A.	*Mech.*	Enid
Thoroughman, Maud E.	*Gen. Sc.*	Perkins
Thornberry, Joseph W.	*Agr.*	Cleo
Walker, Fay B.	*Gen. Sc.*	Stillwater
Wikle, George F.	*Mech.*	Orlando
Withers, Alpheus C.	*Gen. Sc.*	Glencoe

JUNIORS

Ball, Hermond E.	*Mech.*	Clinton
Bilyeu, Robert I.	*Gen. Sc.*	Stillwater
Blue, Frank R.	*Mech.*	Cushing
Broom, Rose E.	*Gen. Sc.*	Perkins
Burnett, Roy E.	*Gen. Sc.*	Stillwater
Burlison, William L.	*Agr.*	Billings
Comstock, Harry	*Mech.*	Idaho Springs, Colo.
Dalton, Clarence G.	*Gen. Sc.*	Stillwater
English, William L.	*Agr.*	Deer Creek
Hartenbower, A. Cleveland	*Agr.*	Stillwater
Hastings, Alice A.	*Gen. Sc.*	Stillwater
Hines, George E.	*Mech.*	Blackwell
Johnstone, John C.	*Agr.*	Lawton
Knauss, Elmer J.	*Agr.*	Stillwater

**Died April 1, 1904.*

Lewis, Carrie E.	*Gen. Sc.*	Stillwater
McBride, Earl A.	*Gen. Sc.*	Stillwater
Nelson, John A.	*Gen. Sc.*	Stillwater
Rush, Walter S.	*Mech.*	Guthrie
Spalding, John A.	*Agr.*	North Enid
Tankersley, M. Lola	*Gen. Sc.*	Stillwater
Wiley, Raymond C.	*Gen. Sc.*	Stillwater
Woodworth, J. Earl	*Agr.*	Perry

SOPHOMORES

Atkinson, Mary B.	*Gen. Sc.*	Stillwater
Beeson, George J.	*Gen. Sc.*	Highland
Braden, Gertrude M.	*Gen. Sc.*	Watsika, Ill.
Brown, Charles W.	*Gen. Sc.*	Belmont
Bryant, Loris E.	*Gen. Sc.*	Ralston
Callahan, Orville P.	*Gen. Sc.*	Apache
Carson, Ross L.	*Gen. Sc.*	Perkins
Chandler, Emma A.	*Gen. Sc.*	Stillwater
Clark, Arthur	*Mech.*	Stillwater
Clayton, Robert L.	*Mech.*	Shawnee
Devore, Herbert J.	*Agr.*	Uncas
Eberle, Dovie	*Gen. Sc.*	Glencoe
Howell, Carl E.	*Mech.*	Blackwell
Laughrey, Fred B.	*Mech.*	Blackwell
Lowry, Theo. M.	*Gen. Sc.*	Stillwater
McElroy, Clarence H.	*Agr.*	Jennings
McLish, Jerry J.	*Agr.*	Viola, Ind. Ter.
McLish, Richard, Jr.	*Agr.*	Viola, Ind. Ter.
Miller, Bertha	*Gen. Sc.*	Stillwater
Olentine, Georgia	*Gen. Sc.*	Stillwater
Olentine, Fred B.	*Mech.*	Stillwater
Osborn, John C.	*Mech.*	North Enid
Pickerell, Lola	*Gen. Sc.*	Ingalls
Semke, Grace E.	*Gen. Sc.*	Garber
Smith, Stewart G.	*Gen. Sc.*	Stillwater
Suggs, Velie C.	*Mech.*	Ardmore, Ind. Ter.
Talbot, George L.	*Gen. Sc.*	Stillwater
Thomason, Frank	*Gen. Sc.*	Chandler
Walker, Veda R.	*Gen. Sc.*	Stillwater
Wilson, James	*Gen. Sc.*	Garber
Worley, Charles S.	*Mech.*	Stillwater

FRESHMEN

Baird, Roddle C.	*Mech.*	Otoe
Blue, Riley J.	*Gen. Sc.*	Stillwater
Bras, Ruth R.	*Gen. Sc.*	Stillwater
Chester, Bertha M.	*Gen. Sc.*	Stillwater

Collins, James E.	*Gen. Sc.*	Shiloh
Corwin, Fred T.	*Gen. Sc.*	Blackwell
Coyle, John W.	*Mech.*	Guthrie
Dawson, Ina L.	*Gen. Sc.*	Stillwater
Dorey, Louis H.	*Agr.*	Homestead
Dougan, Elmer	*Agr.*	Rambo
Ganz, John L.	*Mech.*	Butler, Mo.
Grant, John P.	*Gen. Sc.*	Woodward
Herrick, Walter S.	*Gen. Sc.*	Guthrie
Hoke, Harry G.	*Mech.*	Quay
Hoke, Charles E.	*Agr.*	Quay
Holmes, Iva J.	*Gen. Sc.*	Chicago, Ill.
Jones, Carrie F.	*Gen. Sc.*	Stillwater
Kennedy, Eugene B.	*Mech.*	Enid
Lantz, Arthur G.	*Mech.*	Nardin
Lantz, Calvin R.	*Mech.*	Nardin
Lehrling, Bernhardt E.	*Gen. Sc.*	Renfrow
Lowry, Orlo C.	*Gen. Sc.*	Stillwater
Michael, Pearl F.	*Mech.*	Deer Creek
Millard, Rolla	*Gen. Sc.*	Goodnight
Miller, J. Cuyler	*Gen. Sc.*	Morrison
Morrison, Edwina	*Gen. Sc.*	Stillwater
Mott, Isaac E.	*Mech.*	Deer Creek
Mowery, Julia	*Gen. Sc.*	Ingalls
Ratcliff, Charles I.	*Gen. Sc.*	Perkins
Ratcliff, J. Anderson	*Gen. Sc.*	Perkins
Semke, Stella M.	*Gen. Sc.*	Garber
Stevens, Ruth	*Gen. Sc.*	Meeker
Tait, J. Herbert	*Mech.*	Guthrie
Taylor, William C.	*Mech.*	Nardin
Whetston, Coila S.	*Gen. Sc.*	Mehan
Wharry, Robert M.	*Mech.*	Lamont
Wiar, Ellis L.	*Gen. Sc.*	Stillwater
Wiar, Pearl L.	*Gen. Sc.*	Stillwater
Williams, Emma J.	*Gen. Sc.*	Carney
Williams, Albert N.	*Gen. Sc.*	Stillwater
Wright, Andrew H.	*Gen. Sc.*	Stillwater
Wright, Lizzie J.	*Gen. Sc.*	Stillwater

SUB-FRESHMAN

Abernathy, John R.	Council
Allnutt, Maggie W.	Stillwater
Bahruth, Elsie R.	Acton
Bate, Ada	Stillwater
Briggs, T. Leroy	Stillwater
Briggs, Nellie M.	Stillwater
Broetz, Otto J.	Deer Creek

Brown, Allen	Chattanooga
Burris, Zachariah T.	Otego
Caton, Orpha M.	Stillwater
Cissel, Charles M.	Argonia, Kans.
Coats, Charles T.	Cleveland
Coffin, Charles G.	Elgin
Cole, Frank	Stillwater
Cox, Roscoe N.	Tryon
Crume, S. Barney	Wright
Cutler, Emilio H.	Kingfisher
Durham, May S.	Stillwater
Echols, Luther M.	Perry
Evans, Thomas M.	Stroud
Francis, Victor H.	Piedmont
Gager, Ernest H.	Glencoe
Greenup, Mabel J.	Homestead
Grimes, Lawrence S.	Stillwater
Hamon, Fannie	Stillwater
Harrison, Luella A.	Stillwater
Hays, Agnes G.	Stillwater
Hays, Frank A.	Stillwater
Holloway, Zona B.	West Point
Holloway, Harry S.	Stillwater
Holmes, D. Lynn	Stillwater
Holmes, Oliver W.	Stiliwater
Horton, Henry B.	Stillwater
Hughes, Leroy	Morrison
Hurst, Garland F.	Pawnee
Johnstone, Lovette	Lawton
Jones, Camp. A.	Stillwater
Kerr, Jay	Karoma
Knauss, Lula M.	Stlllwater
Labyer, Blanche M.	Stillwater
Lowe, Mamie	Prague
Markee, May F.	Stillwater
McBride, Howard E.	Hunter
McPheeters, William H.	Stillwater
Means, Plinie E.	McLoud
Montgomery, Mamie A.	Stillwater
Moss, Fred E.	Goodnight
Mowery, Ella	Ingalls
Myers, George E.	Hunter
Neerman, Frank W.	Stillwater
Nottingham, Bernard F.	Wathall
Ray, Lottie N.	Keokuk Falls
Ray, Eva C.	Keokuk Falls

Rice, M. Alice - - - - West Point
Scribbins, Pearl - - - - Guthrie
Shinn, Theodore B. - - Conway Springs, Kans.
Shock, Samuel P. - - - - Council
Smith, Nannie E. - - - Goodnight
Stephens, William R. - - - Stillwater
Stiles, Minnie - - - - Cushing
Straub, Sylvia E. - - - - Stillwater
Tillotson, Bonnie - - - - Coyle
Tolliver, Charles A. - - - Marena
Trosper, Minnie B. - - Lock Springs, Mo.
Williams, Thetis - - - - Stillwater
Wood, Samuel C. - - - Stillwater
Yates, Harry C. - - - - Stillwater
Young, Belle S. - - - Glencoe
Young, George A. - - - - Owens
Yount, Jesse E. - - - Cushing
Znamenacek, Ed. - - - - Glencoe

BUSINESS COURSE STUDENTS

Baker, Ollie M. - - - - Council
Barkham, A. Ruth - - - Stillwater
Bartholemew, Herschel - - Cedarvale, Kans.
Bourdette, Mabel - - - Stillwater
Bissell, Otis - - - - Blackwell
Bras, Ethel - - - - Stillwater
Clark, Frank - - - Deer Creek
Cole, Eva - - - - Stillwater
Comstock, Frank - - Idaho Springs, Colo.
Conwell, Fannie J. - - - - Yates
Cook, Bessie M. - - - - Perkins
Cotrell, Elsie - - - - Stillwater
Demming, William E. - - - Blackwell
Echols, Corley - - - - Perry
Ford, Preston - - - - Stillwater
Hughes, Josephine E. - - - Stillwater
Hurst, Mabel C. - - - - Pawnee
Kelley, Hugh E. - - - - Hunter
Laughrey, Oza B. - - - - Blackwell
Linden, Howard J. - - - Morrison
Myers, Florillard - - - Bowman, S. C.
Myers, Oscar W. - - - Blackwell
Pierce, John S. - - - - Dover
Riggins, Elmer E. - - - Cushing
Ryles, Charles A. - - - - Perkins
Shideler, Grover C. - - - Stiilwater
Slater, Nellie Y. - - - - Blackwell

Slaybaugh, Catherine	Stillwater
Snook, Grace	Anthony, Kans.
Sprague, A. Marie	Morrison
Studebaker, Rosa	Stillwater
Sutton, Carrie M.	Stillwater
Walker, Belle	Stillwater

SHORT COURSE IN AGRICULTURE AND MECHANIC ARTS

Alkire, George E.	Lexington
Brown, Clarence B	Meeker
Buecher, Lewis W.	Opal
Calkins, Wayne	Stillwater
Chance, Hugh C.	Winfield, Kans.
Cornforth, Wlliam R.	Navina
Dreesen, Albert N.	Moore
Gilbaugh, Walter M.	Woodward
Hlavaty, Joseph	Oklahoma City
Hutton, Elmer L.	Newkirk
Jensen, George	El Reno
Jones, William	Garber
Kerr, Harry L.	Stillwater
Kester, Edson H.	Lahoma
Leniger, Alvin	Navina
Lockett, G. S.	Lahoma
Lorenzen, Willie	El Reno
Peters, Walter R.	Dane
Petrasek, Philip	Oklahoma City
Steanson, Stean	Oklahoma City
Straka, Charles	Oklahoma City
Straka, Frederick	Oklahoma City
Vitek, Amos	Stillwater
Weaver, Edgar S.	Newkirk

SPECIAL STUDENTS

Amos, Ethel C.	Stillwater
Beavers, Lou E.	Maramec
Clutter, Edna M.	Little River, Kans.
Cronk, Archie S.	Eldorado, Kans.
Crooks, Charles W.	Ingalls
Cross, Francis D.	Stillwater
Crume, George	Wright
Cunningham, Mildred	Ingalls
Dalton, Lela M.	Broken Arrow, Ind. Ter.
Diggs, Blanche W.	Stillwater
Dolde, Emma S.	Stillwater
Duck, Martha E.	Stillwater
Duncan, Agnes B.	Hazzard
Durrill, Glenn C.	Blackwell

Filmore, K. Wilsie	Arapahoe
French, Grace	Stiltwater
Giger, Calvin E.	Rush Springs, Ind. Ter.
Hall, Cora	Lexington
Hamon, Benjamin F.	Stillwater
Harrison, Ruby F.	Stillwater
Hetherington, Edna C.	Stillwater
Hill, Mary S.	Stillwater
Houston, Louretta	Stillwater
Hurst, Charity T.	Stillwater
Kerr, Hope	Karoma
Lewis, Flossie B.	Stillwater
Koble, William	Stillwater
McPheeters, Martha R.	Stillwater
McPheeters, Nellie H.	Stillwater
Morgan, Hiram	Stillwater
Morris, Grace E.	Belgrade, Neb.
Murphy, Edward M.	Stillwater
Nelson, Cyrus W.	Stillwater
Nelson, Lila E.	Stillwater
Newcomb, Bonnie E.	Stillwater
Nickerson, Tressie E.	Orlando
Noah, Robert H.	Glencoe
North, Esther A.	Stillwater
Olsen, Agnes H.	Stillwater
Oschman, Hattie I.	Stillwater
Otey, Monroe J.	Stillwater
Remington, Gertrude H.	Cushing
Reed, Fred P.	Stillwater
Ross, Paul L.	Stillwater
Sherrard, Elmer R.	Stillwater
Stevens, Laura	Meeker
St. Clair, Brutus E.	Leroy
Suthard, Arthur L.	Stillwater
Talbot, Nora A.	Stillwater
Talbot, George L.	Stillwater
Taylor, William C.	Nardin
Treeman, Ralph W.	Perry
Vance, Lee Roy	Skedee
Vaughn, Myrtle G.	Stillwater
West, Maude E.	Stillwater
Whiteman, Lummie	Madras, Tex.
Wilson, Claude D.	Stillwater
Willits, Inez D.	Perry
Willits, Mabel E.	Perry

SCHOOL OF AGRICULTURE AND DOMESTIC ECONOMY

Archias, F. Azalea	Shawnee
Atkinson, Lester C.	Stillwater
Baker, Newton	Stillwater
Baker, J. Clyde	Council
Bennett, Paul	Marshall
Bentley, Anna	Coyle
Blackburn, Charles	Grimes
Bobbitt, C. Thomas	Dawson, Ind. Ter.
Bobbitt, Josephine	Dawson, Ind. Ter.
Burris, William T.	Stillwater
Bowen, Effie C.	Goodnight
Buetow, Edmond P.	Orlando
Calkins, Wiley D.	Stillwater
Carter, Izora L.	Stillwater
Carter, Irene I.	Stillwater
Cole, Alma M.	Stillwater
Cole, Lula	Stillwater
Cornforth, William	Navina
Countryman, Edmund B.	Newkirk
Cox, Roscoe N.	Tryon
Crawford, Ray	Stillwater
Crismore, U. Leroy	Kingfisher
Davis, Everett	Cereal
Dobson, R. Arthur	Blackwell
Ellis, Grace	Perry
Evans, Thomas M.	Stroud
German, David S.	Stillwater
German, Thomas R.	Stillwater
German, Grover C.	Stillwater
Hale, Clarence	Stillwater
Hamon, Robert	Stillwater
Hand, Thomas	Pawnee
Harbison, Jesse A.	Billings
Hardy, Joseph D.	El Reno
Hesser, George	Stillwater
Henderson, Retta C.	Yale
Hickerson, Clarence C.	Pawhuska
Hoskinson, Forest	Stillwater
Hill, Colly	Catoosa, Ind. Ter.
Honegger, Robert	Kingfisher
Horton, Janie	Stillwater
Hudson, Blanche	Stillwater
Hukill, Charles M.	Council
Hunt, Fred L.	Stillwater
Hutto, Charles	Stillwater

Ingham, Daisy C.	West Point
Ingham, Gertrude M.	West Point
Jones, Ray	Perkins
Kepley, Jeannette E.	Garber
Kerr, Thomas	Karoma
Kessler, Albert	Perkins
Kimberlin, Dennie	Fairfax, Ind. Ter.
Kirkpatrick, Kate C.	Stillwater
Kirkpatrick, S. Cecil	Stillwater
Kirkpatrick, V. Victoria	Stillwater
Koeller, August	Stillwater
Lewis, Lloyd W.	Stillwater
Leniger, Alvin	Lavina
Lummon, Dayton	Mathewson
Lorenzen, Willie	El Reno
March, M. Ethel	Stillwater
Markwell, Thomas	Servado
Maroney, Jessie L.	Stillwater
Maxwell, Donald	Garber
Maxwell, Lutone	Garber
McGinnis, Edward E.	Oklahoma City
McGinnis, William R.	Oklahoma City
McPheeters, Ralph E.	Stillwater
Means, George R.	Stillwater
McTaggart, Winifred M.	Tryon
Mitchell, Lula J.	Stillwater
Mitchell, Lloyd C.	Stillwater
Moody, Vern	Cleo
Moritz, Bernard	Mulhall
Moss, Walter P.	Goodnight
Newcomb, Harley C.	Stillwater
Norrie, Elsie	Stillwater
Norris, Quincy	Altona
Ogden, Bessie	Pauls Valley, Ind. Ter.
Otey, Daniel E.	Stillwater
Patterson, Wiley	Deer Creek
Plummer, John	Deer Creek
Potter, Edgar L.	Parkland
Rice, Charles R.	West Point
Rice, Benjamin R.	West Point
Richards, Elbert C.	Glencoe
Sanders, George T.	Altona
Shock, Guy G.	Council
Scribbins, Abbie	Guthrie
Shields, Noble	Southwest City, Mo.
Shook, Bertha E.	Cushing

Shorb, Eda A. - - - - - Stillwater
Stallard, Guy - - - - - Pawnee
Stevens, Harold W. - - - - Stillwater
Stovall, Sadie N. - - - - Stillwater
Stovall, Bertha M. - - - - Stillwater
Straub, Otto T. - - - Claremore, Ind. Ter.
Swaney, Willard - - - - - Guild
Tankersley, Percy A. - - - - Stillwater
Tate, James A. - - - - - Stillwater
Taylor, William S. - - - - Renfrow
Thatcher, Edward T. - - - - Stillwater
Venable, Zella M. - - - - Stillwater
Venable, Lila R. - - - - - Stillwater
Walters, Maggie - - - - - Luther
Walters, Minnie - - - - - Luther
Ward, Douglas - - - - - Wright
Whittington, Willis F. - - Ardmore, Ind. Ter.
Wilder, Ova A. - - - - Guthrie
Wildman, J. Wesley - - - - Ralston
Wisner, Kenton J. - - - - Stillwater
Workman, Albert C. - - - Courtland, Kans.
Wright, John T. - - - - Stillwater
Yake, Elliott - - - - - Pawhuska
Yount, Maud - - - - Cushing

TOTAL - - - 420
REPEATED - - - - 3
NET TOTAL - - 417

ALUMNI

1896

Arthur W. Adams, Ass't Bank Cashier - Hugo, Ind. T.
J. Homer Adams, Asst. in Math., College Stillwater, Okla.
Frank E. Duck, Farmer - - Stillwater, Okla.
A. Edward Jarrell, R. R. Weighmaster - Pueblo, Colo.
Ervin G. Lewis, Bank Cashier, - - Ramona, Ind. T.
Oscar M. Morris, Horticulturist, College Stillwater, Okla.

1897

George W. Bowers, Railroad Service - Enid, Okla.
Andrew N. Caudell, Entomol., Agr. Dept. Washington, D. C.
Jessie O. (Thatcher) Bost, At Home - Corning, Ark.

1898

John T. Clark, Gov. Educational Service - Manila, P. I.
Augustus G. Ford, Chemist Ex. Sta. and Instructor in Chemistry - Stillwater, Okla.
Norris T. Gilbert, Bank Cashier - Wetumka, Ind. T.
Thomas J. Hartman, Bank Cashier - Deer Creek, Okla.
Clinton Morris, Chemist Iron Foundry - Low Moor, Va.
Emma H. (Swope) Dolde, At Home - Stillwater, Okla.
Blanche M. (Wise) Diggs, At Home - Stillwater, Okla.

1899

Noah P. Bullock, Lumber Salesman - Stillwater, Okla.
Clarence R. Donart, Bank Clerk - - Ripley, Okla.
Minnie A. (Dysart) Teter, At Home, - Pawnee, Okla.
Francis M. Greiner, Chemist Iron Works - Ensley, Ala.
Cora A. Miltimore, Librarian, College - Stillwater, Okla.
S. Earl Myers, Bookkeeper - - Shawnee, Okla.
Arthur B. McReynolds, Publisher, - Guadalupe, Calif.
Charles E. Regnier, Bank Cashier - Okmulgee, Ind. T.

1900

Arthur W. Anderson, Lawyer - - Woodward, Okla.
Cora M. (Donart) Coffee, At Home
Thomas T. Goff, Instructor, Gem City Bus. Col. Quincy, Ill.
John S. Malone, Merchant - - Parker, Okla.
Louis C. Miller, Div. of Forestry - Washington, D. C.
George W. Stiles, Jr., Bur. of An. Ind. Washington, D. C.

1901

R. Bradford Hurst, U. S. Marine Service, San Fransisco, Calif.
Kate A. Jewitt, At Home - - - Udall, Kans.
Charles L. Kezer, Instructor, Central Normal Edmond, Okla.
Arthur C. Lewis, Asst. to State Entom. College Station, Tex.
Velma Walker, At Home - - Stillwater, Okla.

1902

A. Bondy Anderson, Santa Fe Ry. System Topeka, Kans.
Sarah S. Carson, County Superintendent Stillwater, Okla.
A. Warren Flower, Bookkeeper, - Kemmerick, Wash.
Gertrude Hunt, At Home - - Stillwater, Okla.
George M. Janeway, Teacher - Stillwater, Okla.
Charles V. Jones, Kans. Univ., Law School Lawrence, Kans.
Ralph Kratka - - - - Stillwater, Okla.
Chester H. Lowry, Mich. Univ., Law School Ann Arbor, Mich.
Samuel A. McReynolds, Teacher - - Stillwater, Okla.
Monroe J. Otey - - - - Stillwater, Okla.
Howard F. Pigg, University of Kansas Lawrence, Kans.
Frank L. Rector, Bur. of An. Ind. - Washington, D. C.
R. Rex Shively, Drug Clerk - Stillwater, Okla.
Charles E. Smeltzer, Chemist, New Jersey Zinc Co. Iola, Kans.
Wallace T. Thornberry, Surveying Corps Kansas City, Mo.
Ethel V. Walker, A'sst in Eng. and Latin Coll. Stillwater, Okla.
Belle Walker, At Home - - Stillwater, Okla.
Marion M. Woodson, High School Teacher Hobart, Okla.

1903

Horace S. Gulick - - Oklahoma City, Okla
George W. Hoover, Ass't in Bur. of Chem. Washington, D. C.
R. Morton House, Westinghouse Electric Co. Pittsburg, Pa.
Mamie G. Houston, Teacher - Stillwater, Okla.
Nina B. Hurst, Teacher - - Stillwater, Okla.
Mary (Jarrell) Hartman, At Home - Deer Creek, Okla.
Ransom S. Kenyon, General Electric Co. Schenectady, N. Y.
Robert H. Kerr, Ass't Chem. Md. Agr. Coll. College Park, Md.
William E. Kinder, Supt. Schools - Cushing, Okla.
Henry J. Lincoln, Santa Fe Ry. System Topeka, Kans.
Henry F. McBride, General Electric Co. Schenectady, N. Y.
Maud I. Miller, Teacher - - Stillwater, Okla.
Charles E. Morrow, Student, Univ. of Kans. Lawrence, Kans.
Jessie E. Morrow, Ass't in Dom. Econ., Coll. Stillwater, Okla.
Mary A. Neilsen, Teacher - - Perry, Okla.
Stella C. Nelson, Teacher - - Stillwater, Okla.
Lila E. Nelson, Teacher Science, High School, Stillwater, Okla.
Cyrus W. Nelson, Ass't Bur. of Chemistry Washington, D. C.
Esther A. North, At Home - - Stillwater, Okla.
Abbott G. Robinson, Law Student, U. of Ks. Lawrence, Kans.
Bertha M. Ruble, Teacher, City Schools - Enid, Okla.
Florence K. Walker, Stenographer - Stillwater, Okla.

VIEWS

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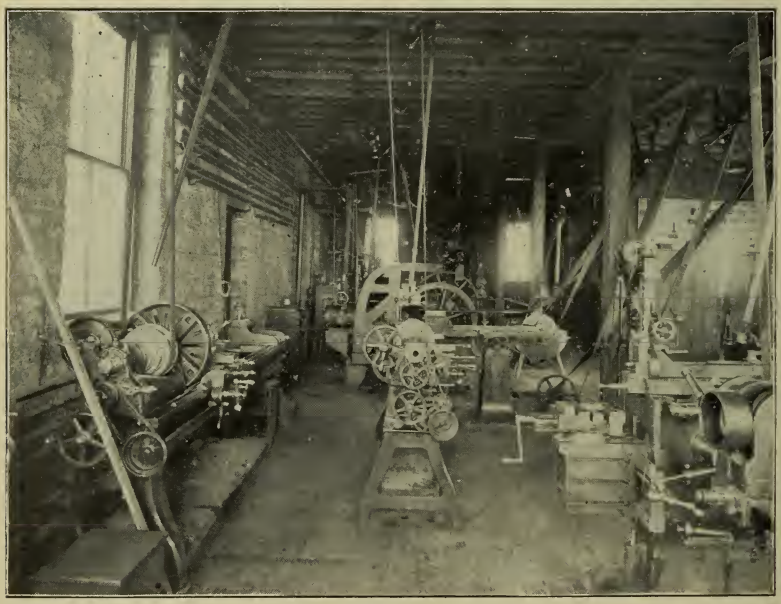
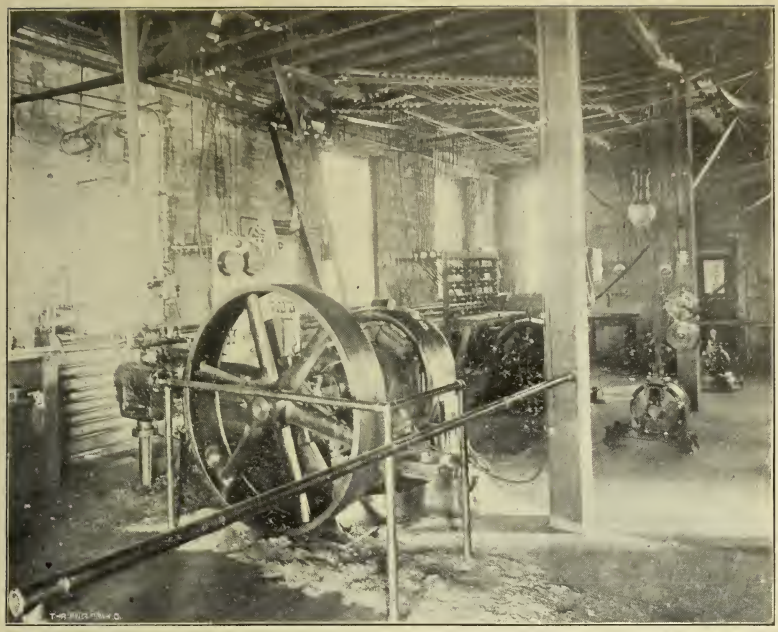


MACHINE SHOP



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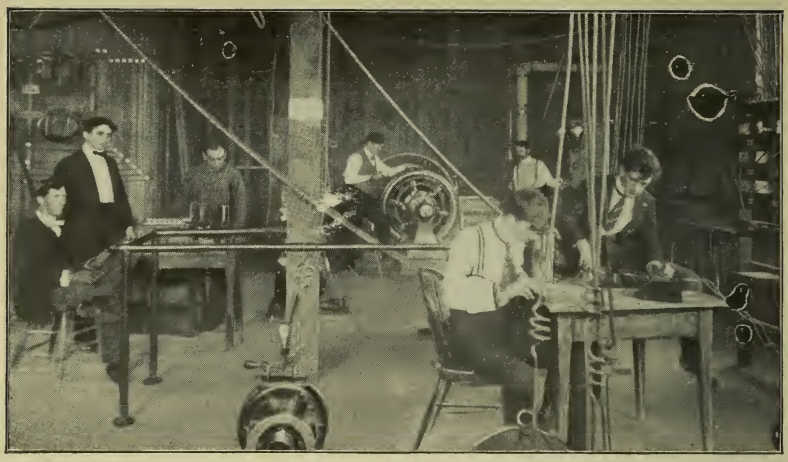

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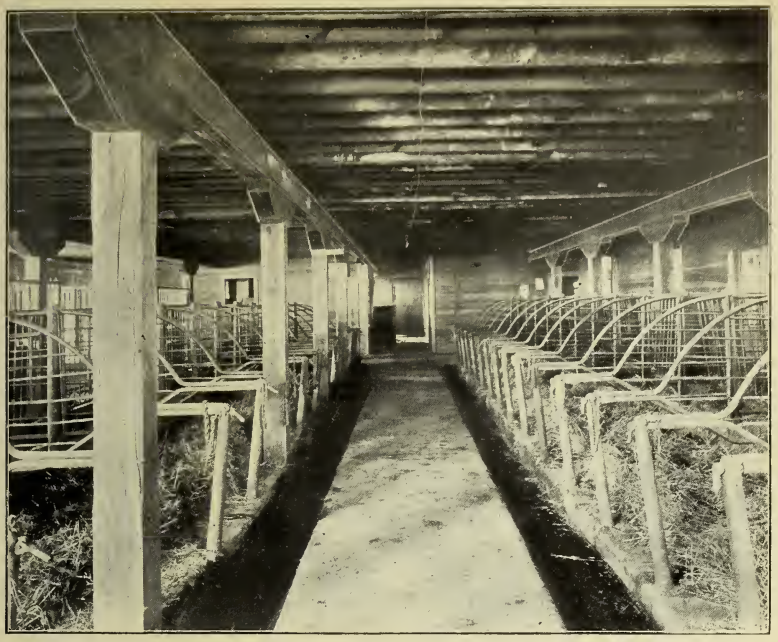

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